

XI.—ON NEW ZEALAND COLEOPTERA, WITH DESCRIPTIONS OF NEW GENERA AND SPECIES. BY DAVID SHARP, M.B. [Communicated by PROFESSOR W. R. M'NAB, Consulting Botanist and Entomologist to the Royal Dublin Society.] Plates XII. and XIII.

[Read, November 18, 1885.]

ALTHOUGH the entomology of New Zealand is of considerable interest, owing to the antipodean and isolated position of the islands, it is still very imperfectly known; indeed, for reasons which it is difficult to comprehend, it has, until recently, been supposed that this department of the New Zealand fauna was chiefly remarkable for its extreme poverty. Linneus was not acquainted with any beetles from there; but a small number were obtained by the naturalists of Captain Cook's voyage; and some of these were described by Fabricius about one hundred years ago, and are—in part at any rate—still preserved in the Banksian collection in our national museum at Kensington. After this very little was done at New Zealand entomology till 1846, when the zoology of the voyage of H. M. ships 'Erebus' and 'Terror' was, by authority of the Lords Commissioners of the Admiralty, in part published. The entomological portion was executed by Adam White, and the Coleoptera, so far as then known, were completely enumerated, other parts of the entomology remaining unpublished. This work included the specimens obtained during the voyage of the ships I have mentioned, and also a few collected by Charles Darwin on his voyage round the world, and some obtained from Dr. Sinclair, Mr. Earl, and others. About one hundred and fifty species were thus brought together. Very little was done from that time till the year 1867, when a new era, as regards the Coleoptera of New Zealand, may be said to have commenced, by the description by Bates of a small collection sent by Fereday to this country; and the result of the activity of several entomologists during this latter period is, that the catalogue of the New Zealand Coleoptera is increased from about one hundred and fifty to about one thousand five hundred species. Messrs. R. W. Fereday, and C. M. Wakefield of Christchurch, as well as Professor Hutton, were perhaps those who in the early part of this period contributed most to this great increase; and they were followed by Mr. T. Lawson, and Captain Thomas Broun of Auckland, and last, though not least, by Mr. R. Helms of Greymouth.

The successful collecting of beetles and other insects is by no means so easy a matter as those who have not tried it may be inclined to believe; and for the procuring of the rarer and more retiring species, experience, perseverance, skill, and even hard work, are required, so that it is only just that we should acknowledge the obligations of science to those who, by their labours in the field, render possible the investigations of the study and laboratory.

In the Paper I now lay before the Society about one hundred and forty additional species are described; and I have also proposed a considerable number of genera, and new generic names, as a preliminary considered essential to classification and investigation.

Although the catalogue of New Zealand Coleoptera is now of considerable extent, yet it is, even as regards number of species, still very incomplete; and on consideration of such data as I possess enabling me to form an opinion on the point, I estimate that New Zealand will be found to possess somewhere between three thousand and three thousand five hundred species of Coleoptera.

The study and classification of such a large number of organized beings of complex and minutely perfected structure, and often of very minute size, is, it will be admitted by all, by no means an easy matter, and must demand much time before anything like final results can be obtained. From this point of view the New Zealand catalogue is very far from being in a satisfactory state; a large number of species have been described and placed in genera to which they have no claim to belong, and hence a revision is urgently needed of the various families and groups, so as to bring order where at present disorder prevails. Of course this can only be done by examination of the creatures in question, and a very large number of those described are unknown in Europe, so that we cannot do very much at present to help the colonists in this respect. I have, however, previously revised—though in a very imperfect manner—a few of the groups, and in the present Paper I have given the results of a scrutiny I have made of such Pterostichini and Otiorhynchini as are at my disposal.

Under these circumstances, it is plain that anything that may be said as to the nature of the fauna and its affinities with those of other countries cannot be of much importance, and with this premise I will make a few remarks on these points.

It has now been ascertained that New Zealand possesses a coleopterous fauna analogous to that of Europe and other continental regions of the world in extent and complexness. The species when examined show similar structures exhibiting analogous gradations and cross affinities; but I think the New Zealand insects possess a larger proportion of forms in which the structures are—if I may be permitted the expression—comparatively little evolved, or less perfect. And in brilliancy of colour I think the New Zealand beetles are certainly very deficient. Cetoniadæ and Buprestidæ are the most brilliantly coloured of beetles, and of the

former family there is not one in New Zealand, and of the latter only two minute and comparatively obscure forms. Next to these two families in brilliancy of colour come the Phytophaga, which usually form a large proportion of the beetles of continental lands; but in New Zealand are few in numbers, small in size, and without any large and beautifully coloured representatives. In the weevils, too, there is nothing like the brilliant Phyllobii and Polydrusi which are amongst the most abundant of European Curculionidæ. So, too, in æsthetic and sexual ornamentation the New Zealand beetles are clearly deficient; no Longicorn has yet been obtained with tufted antennæ; there is not a horned Lamellicorn in the islands; and not one of the numerous Lucanidæ possesses a male with really large mandibles. The beetle in a New Zealand collection that would most strike an ordinary eye is, I think, *Lasiorhynchus barbicornis*, on which I shall make a remark below.

But if to the uneducated sense the New Zealand beetles are deficient, they amply compensate for this by some other peculiarities interesting to the trained intelligence. There are a considerable number of isolated forms having—it appears at present—little or no connexion with the ordinary coleopterous fauna of the islands. As instances I may mention *Amarotypus* (the sole representative of the first primary division of the Carabidæ,\* usually called Carabini, but for which I much prefer the appellation *Carabici fragmentati*), *Lenax*, *Rhyssodes*, *Diagrypnodes*, *Picrotus*, *Dendroblox*, *Saphobius*, *Brounia*, *Amplectopus*, *Rhinorhynchus*, *Rhadinomus*, *Clypeorhynchus*, *Paraphylax*, *Lasiorhynchus*, *Aglycyderes*, *Prionoplus*. The study of these isolated forms will be an important feature in the New Zealand entomology of the future, with a view to ascertaining how much distinction they possess from the other creatures with whom they now live, and from those of other countries; an answer to this question being an essential preliminary to the inquiry whether these forms should be considered, notwithstanding their isolation, as really a part of the New Zealand endemic insects, or whether they have been more recently introduced. As in my opinion we do not know at present more than half of the New Zealand beetles, it is evidently possible that some of these isolated forms may prove to be connected with the more ordinary fauna by intermediates.

I have already alluded to the fact that in my opinion the New Zealand beetles will be found to exhibit a less evolution of their structural characters than their analogues in continental countries; but I offer this opinion with much diffidence, for really the data for its adequate discussion are not yet extant. Indeed, in the case of some of the structures of beetles, we have not sufficient knowledge of their functional importance to enable us to decide which is lower, which higher. Still

\* *Clivina rugithorax*, Putz, also belongs to this division, but is only, perhaps an Australian insect, for it is apparently confined to the neighbourhood of Auckland, and, if so, has probably been introduced by commerce.

we can even at present decide with approximate certainty, in the case of some organs, which is the more rudimentary of two forms under comparison.

When any attempt shall be made to ascertain what affinities the New Zealand beetles possess with those of other countries, it must, of course, if it is to be of value, deal with the mass of the fauna, and not be decided by the consideration of some of the exceptional or isolated forms I have previously mentioned; and as the majority of the New Zealand Coleoptera are insects of small size and unattractive appearance, belonging to groups whose congeners in foreign countries have been but little studied, or are even quite unknown, it is clear that no answer of importance can at present be given to the question where the nearest allies of the New Zealand beetles are to be found; but I entertain an impression that it will be in the Chilian and Patagonian fauna that the greatest amount of affinity will be found, and that while numerous points of propinquity with the Australian fauna undoubtedly exist, yet they are rather exceptions dealing with isolated forms, and but little affect the mass of the fauna; while if we recollect that many of the most striking, remarkable, and characteristic of the Australian groups of beetles are entirely unrepresented in New Zealand—the Pseudomorphini, the Schizorhinini, the Stigmoderas, and the Amycteridæ for instance—we must admit that the two faunæ cannot be considered as at all similar.

*Lasiorhynchus barbicornis* is the only member of the Brenthidæ found in New Zealand, and is, perhaps, the most remarkable beetle of the islands, and on the whole it must be considered a highly evolved form, there being great sexual differentiation, with remarkable male characters, large size, and considerable perfection of general structure. It would then appear to be quite foreign to the New Zealand fauna; and yet, so far as we know, it has not any really close ally in other countries. Another of the remarkable isolated forms is *Dendroblax*; it is of large size, and has been known for forty years (though still a great rarity in European collections). Its position has never been satisfactorily decided, and Parry considered it uncertain whether it should go in the Lucanidæ or not; that it has no ally at all in New Zealand, and no near ally out of it is clear therefore. And it appears very difficult to know how we are to explain such cases. My own idea is something of this sort: I imagine there has been going on in New Zealand, for an enormous period of time, the evolution of a fauna parallel with that of the continents of the world, and that during this enormous period it has occasionally received intrusions from the creatures of other countries, some of which may have continued to evolve since their introduction, while others have remained with little change. On such a view *Dendroblax* might be an ancient intrusion into New Zealand, which has become extinct elsewhere, and has evolved but little in New Zealand. *Lasiorhynchus* might be an intrusion into New Zealand that has evolved much since its introduction; while *Rhadinomus* might be a comparatively recent intrusion from Australia.

## LIST OF SPECIES AND GENERA DESCRIBED OR NOTICED.

## Fam. CICINDELIDÆ.

Cicindela helmsi, n. sp.

## Fam. CARABIDÆ.

Mecodema ducale, n. sp.

,, rugiceps, n. sp.

,, metallicum, n. sp.

Diglymma, nov. gen.

,, ovipenne, n. sp.

,, dubium, n. sp.

Metaglymma sulcatum, n. sp.

Acallistus, nov. gen.

,, simplex, n. sp.

Ctenognathus, Fairm.

,, latipennis, n. sp.

,, pictonensis, n. sp.

Pterostichus compressus, n. sp.

,, calcaratus, n. sp.

,, achilles, n. sp.

,, brounianus, n. sp.

,, myrmidon, n. sp.

,, constrictellus, n. sp.

,, longiformis, n. sp.

,, oscillator, n. sp.

,, ovatellus, Chaud.

Zolus, nov. gen.

,, helmsi, n. sp.

Sympiestus, nov. gen.

,, syntheticus, n. sp.

Tarasthetus debilis, n. sp.

Tachys latipennis, n. sp.

Cillenum batesi, n. sp.

,, (?) subcæcum, n. sp.

## Fam. STAPHYLINIDÆ.

Aphytopus, nov. gen.

,, gracilis, n. sp.

Cafioquedus, nov. gen.

,, gularis, n. sp.

Quedius antipodum, n. sp.

,, edwardsi, n. sp.

,, insolitus, n. sp.

,, latifrons, n. sp.

Phanophilus, nov. gen.

Coprostygnus, nov. gen.

,, sculptipennis, n. sp.

Omalius sagoloide, n. sp.

## Fam. PSELAPHIDÆ.

Dalmisus, nov. gen.

,, batrisodes, n. sp.

## Fam. PARNIDÆ.

Protoparnus longulus, n. sp.

## Fam. SILPHIDÆ.

Catopsolius, nov. gen.

,, lævicollis, n. sp.

## Fam. COLYDIIDÆ.

Heterargus, nov. gen.

,, rudis, n. sp.

Bitoma sellata, n. sp.

,, auriculata, n. sp.

,, serraticula, n. sp.

,, mundula, n. sp.

Ulonotus dissimilis, n. sp.

Enarsus cucullatus, n. sp.

Pycnomerus, Auct.

,, longulus, n. sp.

,, helmsi, n. sp.

,, sulcatissimus, n. sp.

,, latitans, n. sp.

Bothrideres cognatus, n. sp.

## Fam. NITIDULIDÆ.

*Ips minimus*, n. sp.

## Fam. CUCUJIDÆ.

*Brontopriscus*, nov. gen.

„ *sinuatus*, n. sp.

*Cathartocryptus*, nov. gen.

„ *obscurus*, n. sp.

*Saphophagus*, nov. gen.

„ *minutus*, n. sp.

*Picrotus*, nov. gen.

„ *thoracicus*, n. sp.

## Fam. MYCETOPHAGIDÆ.

*Triphyllus huttoni*, n. sp.

„ *zealandicus*, n. sp.

„ *maculosus*, n. sp.

„ *confertus*, n. sp.

„ *concolor*, n. sp.

„ *rubicundus*, n. sp.

## Fam. LUCANIDÆ.

*Lissotes rufipes*, n. sp.

## Fam. SCARABÆIDÆ.

*Saphobius setosus*, n. sp.

*Pyronota lugubris*, n. sp.

## Fam. ELATERIDÆ.

*Thoramus wakefieldi*, Shp.

„ *parryi*, Cand.

„ *huttoni*, n. sp.

*Cryptohypnus thoracicus*, Shp.

„ *pallipes*, n. sp.

*Corymbites irregularis*, n. sp.

„ *mundus*, n. sp.

*Asymphus*, nov. gen.

„ *insidiosus*, n. sp.

*Geranus crassus*, Shp.

*Protelater elongatus*, Shp.

## Fam. DASCILLIDÆ.

*Amplectopus*, nov. gen.

„ *ovalis*, n. sp.

## Fam. PTINIDÆ.

*Perplectrus*, new name for *Xenocera*,  
Broun.

*Perplectrus obscurus*, n. sp.

## Fam. TENEBRIONIDÆ.

*Pseudopatrum*, nov. gen.

„ *sordidum*, n. sp.

*Syrphetodes bullatus*, n. sp.

*Periatrum*, nov. gen.

„ *helmsi*, n. sp.

*Apthora glabritarsis*, n. sp.

*Adelium multistriatum*, n. sp.

„ *simplex*, n. sp.

„ *sericatum*, n. sp.

„ *intermedium*, n. sp.

„ *dunedinis*, n. sp.

*Cerodolus*, nov. gen.

„ *chrysomeloides*, n. sp.

*Artystona obscura*, n. sp.

„ *collaris*, n. sp.

„ *obsoleta*, n. sp.

*Malacodrya*, nov. gen.

„ *pictipes*, n. sp.

## Fam. CURCULIONIDÆ.

*Cecyropa*, Pascoe.

„ *albicans*, n. sp.

*Nonnotus*, nov. gen.

„ *griseolus*, n. sp.

*Protophormus*, nov. gen.

„ *gracilis*, n. sp.

„ *binodulus*, n. sp.

„ *robustus*, n. sp.

*Epitimetes*, Pascoe.

„ *wakefieldi*, n. sp.

*Platyomida coronata*, n. sp.  
 „ *simulatrix*, n. sp.  
*Aporolobus*, nov. gen.  
*Protolobus*, nov. gen.  
 „ *obscurus*, n. sp.  
*Catoptes*, Schön.  
 „ *brevicornis*, n. sp.  
 „ *scutellaris*, n. sp.  
 „ *longulus*, n. sp.  
*Brachyolus*, White.  
 „ *inæqualis*, n. sp.  
 „ *punctipennis*, n. sp.  
 „ *bagooides*, n. sp.  
 „ *huttoni*, n. sp.  
 „ *longicollis*, n. sp.  
*Heterodiscus*, nov. gen.  
 „ *insolitus*, n. sp.  
 „ *horridus*, n. sp.  
*Cuneopterus*, nov. gen.  
 „ *conicus*, n. sp.  
*Dermotrichus*, nov. gen.  
 „ *mundulus*, n. sp.  
*Crisius obesulus*, n. sp.  
*Pentarthrum cephalotes*, n. sp.  
 „ *porcatum*, n. sp.  
 „ *confertum*, n. sp.  
 „ *constrictum*, n. sp.  
*Microtribus pictonensis*, n. sp.  
*Inosomus*, Broun.

## Fam. ANTHRIBIDÆ.

*Anthribus tuberosus*, n. sp.  
 „ *cucullatus*, n. sp.  
 „ *inornatus*, n. sp.  
 „ *concolor*, n. sp.  
 „ *obtusus*, n. sp.  
*Proscoporhinus albifrons*, n. sp.

## Fam. CERAMBYCIDÆ.

*Cemonia*, Newm.  
 „ *humilis*, Newm.  
 „ *villosa*, n. sp.  
 „ *hirta*, Fab.  
 „ *plicicollis*, n. sp.  
 „ *inæqualis*, n. sp.  
 „ *simplicicollis* Broun.  
 „ *mutica*, n. sp.  
 „ *debilis*, n. sp.  
*Ophryops dispar*, n. sp.  
*Didymocantha quadriguttata*, n. sp.  
*Anencyrus*, nov. gen.  
 „ *discedens*, n. sp.  
*Ceralomus*, nov. gen.  
 „ *morosus*, n. sp.  
*Xylotoles germanus*, n. sp.  
 „ *fasciatus*, n. sp.  
*Stenellipsis cuneata*, n. sp.  
*Pœcilippe*, Bates.  
 „ *medialis*, n. sp.  
 „ *femoralis*, n. sp.  
*Tetrorea longipennis*, n. sp.

## Fam. CHRYSOMELIDÆ.

*Eucolaspis*, nov. gen.  
*Atrichatus*, nov. gen.  
*Pilacolaspis*, nov. gen.  
 „ *wakefieldi*, n. sp.  
*Cacomolpus*, nov. gen.  
 „ *globosus*, n. sp.  
 „ *plagiatus*, n. sp.  
*Trachytreta*, nov. gen.  
*Pleuraltica*, nov. gen.  
*Luperus*, Auct.  
 „ *nigricornis*, n. sp.  
 „ *cœnescens*, n. sp.  
 „ *puncticollis*, n. sp.

## Fam. CICINDELIDÆ.

## CICINDELA.

*Cicindela helmsi*, n. sp.—Nigra, parum metallescente, labro elytrorumque margine albidis; hoc haud lato, post humerum interrupto, post medium fasciam sat elongatam emittente; pronoti margine laterale simplicie. Long. 8 mm.

Antennæ entirely dull black, rather elongate; head small; labrum large, pallid yellow, slightly oblique on each side (in the male), and with a short tooth in the middle; sculpture of head and thorax very fine; elytra moderately broad, of a dull slate colour, with a few indistinct green spots scattered over them; the cream-coloured margin is narrow, and is interrupted, so that the basal portion forms a slender lunule; the postmedian fascia is slender and irregular; the legs are elongate, the femora green, the tibiæ dark, slightly fuscous at the knees.

This insect is allied to *C. feredayi*, Bates, from which it differs by the surface of the elytra being smooth, the very numerous blue specks seen in *C. feredayi* being here very obsolete and very few, while on the other hand there are some larger, round, green spots scattered over the surface, not arranged in a series; the humeral lunule is small and isolated, and the post-median fascia short and irregular. It more resembles *C. austro-montana*, Bates, but that species is remarkable by the large development and duplication of the side margin of the pronotum.

The only specimen\* I have seen of this species was sent me some years ago from Texas, North America, by Mr. Belfrage, who also informed me that it came from Greymouth. It was probably found there by the naturalist who has been so persevering and successful in collecting the invertebrates of New Zealand, and after whom I have, with much pleasure, named it.

## Fam. CARABIDÆ.

## MECODEMA.

*Mecodema ducale*, n. sp.—Major, elongatum nigrum, haud nitidum; prothorace basi fortiter coarctato, lateribus crenatis, dorso, presertim versus latera, transversim strigoso; elytris interne lævigatis, externe rugulose foveolatis. Long. 30 mm. (Plate XII., fig. 1.)

Length of thorax rather more than three-fourths of the greatest width, the sides strongly rounded, abruptly contracted behind, the hind angles rectangular, the lateral margin much interrupted, so as to be conspicuously crenate; along the middle is a very definite longitudinal channel, and the surface has distinct, rather distant transverse wrinkles, which are only very slightly impressed or obsolete over a great part of the surface, being a little more distinct near the sides and the

\* See notes added during press, No. 1.



median channel; touching the lateral margin at its point of constriction there is a small deep fovea not extending to the base, the hind margin distinctly emarginate in the middle; elytra elongate, near the sides with deep, coarse, regular foveæ, but more than half the surface is smooth.

A single female was sent by Helms as No. 383; it was captured at Ahoura, near Greymouth, in 1884.

This is probably the most remarkable Carabideous insect yet discovered in New Zealand, and will be readily distinguished by the peculiar sculpture of the wing cases.

*Mecodema rugiceps*, n. sp.—Parum latum, nigrum, capite thoraceque profunde rugosis, hoc lateribus crenatis, elytris ubique subequaliter variolosis. Long. 21 m.m. (Plate XII, fig. 2.)

Head with very prominent eyes, which are placed rather nearer to the thoracic margin than they are in *M. sculpturatum*, the surface bearing deep, coarse rugæ, which are distant on the disc, denser on the vertex, where also they are chiefly transverse in their direction, and appear to a certain extent to consist of enlarged punctures; thorax rather flat, the length nearly seven-eighths of the greatest width, the sides rounded, much constricted behind, the hind angles rectangular, the base truncate, the lateral margin numerously interrupted, with about eight intramarginal tactile setæ on each side, the surface evenly covered with deep, quite uninterrupted transverse lines, and bearing a longitudinal channel which does not quite attain the front or the hind margin; close to both these margins there are short, longitudinal plicæ; there is a small impression at the point of constriction on each side, not attaining the base. Elytra regularly covered with impressions placed in series, deep at the sides, more shallow towards the suture; legs black; middle tibiæ very asperate externally.

\* None of the descriptions of other species at all accord with the sculpture of this insect, of which three examples were found by Helms near Bealey, in 1884.

*Mecodema metallicum*, n. sp.—Angustulum, nigro-piceum, supra æneum, antennis pedibusque piceis, femoribus rufis; capite subrugoso, vertice latius punctato; prothorace elongato, lateribus obsolete crenatis, dorso parum profunde transversim rugoso; elytris ubique subequaliter variolosis. Long. 18 m.m.

Antennæ and palpi dark red; head very irregularly rugose, the rugæ not elongate or very definite, the vertex coarsely punctate. Thorax elongate, very nearly as long as broad, with a channel on the middle becoming obsolete before attaining the front margin, the surface with rather distant coarse, but not deeply impressed, transverse rugæ; the base has distinct longitudinal plicæ; the sides are but little rounded, but are narrowed behind, and sinuate so as to form a rather well-marked contraction close to the base; the base is a little emarginate in the middle, and the hind angles rather obtuse; at the point of contraction there is a

depression not reaching the base; the lateral margin is not truly crenate, though it has the appearance of being broken owing to its being impinged on by the punctures in which the intra-marginal tactile setæ are placed; these latter are nine or ten in number on each side, the three or four anterior being placed rather near one another. The elytra are narrow, the shoulders being excessively diminished, and they bear series of impressions or large punctures, the external ones being deep, those near the suture rather smaller and less deep.

Greymouth. I received my example of this species from Mr. Helms four or five years ago, but have not described it hitherto, hoping I might be able to compare it with *M. crenicolle* Cast., to which it is probably allied. Although I have not been able to make the acquaintance of Castlenau's species, I feel little doubt the two are distinct, though Castlenau's description is very brief and imperfect.

#### DIGLYMMA (nov. gen. Broscinorum).

EX affinitate generis *Mecodemæ*. Antennæ breves, moniliformes, articulis 5–11 ubique pubescentibus. Palpi graciles, articulo ultimo tenue, præcedente vix crassiore. Tibiæ anteriores sat latæ, extus rectæ, angulo apicale externo haud producto. Tarsi breves.

The two species for which I propose this name are allied to *Metaglymma*, from which they differ by the unproduced angle of the front tibiæ, and by the strongly pubescent antennæ, as well as by the mandibles which in *Metaglymma* are elongate, and have no seta in the scrobe, whereas in *Diglymma* the scrobe is setigerous.

They have the terminal joint of the palpi more slender than in any of the other yet described New Zealand Broscini, and in this respect differ strongly from *Oregus*, which also has front tibiæ simple at the apex. *Diglymma* differs from *Mecodema* by the tibial structure, and by the shorter tarsi and more slender palpi. The only other New Zealand genus of the Broscini is *Brullea*, and although I am not acquainted with it, except by description, it is evident that it is very different from *Diglymma*. According to Putzeys (*Ann. Mus. Gen.* 1873, p. 318) it has the palpi slender like *Diglymma*, but the structure of the tibiæ must be remarkably different. *Metaglymma clivinoides* Cast., redescribed at length by Putzeys in his revision of the Australian and New Zealand Broscides (op. sup. cit. p. 314) is, I think, probably a species of *Diglymma*, though it is strange that Putzeys should have placed it in *Metaglymma* if it has pubescent antennæ, as he makes the bare condition of those organs one of the most prominent characters of *Metaglymma*; he indicates, however, that *M. clivinoides* should probably form a new genus without mentioning the grounds for his opinion. His words are, "ces deux derniers insectes (*i.e.* *M. clivinoides*, and *M. dyschirioides*) appartiennent à peine au genre dans lequel je les laisse provisoirement."

*Diglymma ovipenne*, n. sp.—Nigrum, antennis pedibusque piceis; prothorace nitido, elongato, profunde canaliculato, utrinque ad basin foveolato, basi apiceque crebre punctatis; elytris regulariter profunde striatis, striis crebre punctatis. Long. 12–14 m.m. (Plate XII, fig. 3.)

Antennæ short, not reaching so far back as the base of the thorax. Head small, not much more than half as broad as the thorax, with a series of punctures extending across the vertex at the point in a line with the back of the eyes, where it is depressed, and also with a feeble punctuation on each side of the front. Thorax elongate, just as long as it is broad; the sides rounded, contracted behind and sinuate; the hind angles almost rectangular, but slightly obtuse; the lateral margin is entire; the surface is shining black; there is a very deep channel along the middle which does not reach the base or apex, parallel with the front and also with the base there are numerous rather deep punctures, and across the middle a few extremely fine and obsolete transverse undulatory lines, and at each side at the point of constriction an elongate sinuous fovea reaching the base. The elytra are curved at the sides, and deeply striate, so that the interstices are a little converse; the striæ numerous and distinctly punctured.

Greymouth. Helms, No. 13.

*Diglymma dubium*, n. sp.—Nigrum, antennis pedibusque piceis; prothorace nitido, elongato, profunde canaliculato, utrinque ad basin foveolato, basi apiceque punctatis; elytris regulariter striatis, striis punctatis versus apicem obsoletis. Long. 11 m.m.

This is very closely allied to *D. ovipenne*, but is rather less elongate, and has the elytra more lightly striate, so that at the sides and extremity the striation becomes obsolete.

Mr. Bates, who kindly allowed me to examine his rich collection, and aided me with his stores of knowledge, thought this might be the *Metaglymma clivinoides* Cast.; but after carefully reading Putzeys' redescription of the species made from Castlenau's type, I do not think this can be the case, there being several discrepancies, especially the omission of any reference to the punctuation of the base and front of the thorax; the thoracic base, indeed, of *M. clivinoides* is said to be slightly rugose.

Bealey. Helms, two examples.

#### METAGLYMMA.

*Metaglymma sulcatum*, n. sp.—Nigrum, antennis pedibusque piceis; prothorace impunctato, canalicula longitudinali impresso; elytris fortiter profundeque punctato-sulcatis. Long. 18 m.m. (Plate XII, fig. 4.)

Head without punctures or wrinkles; with prominent eyes, and very indistinct post-ocular constriction. Thorax, with a length nearly seven-eighths of the width, a little rounded at the sides, considerably narrowed behind, and with a gentle, not abrupt, basal sinuation; the surface without sculpture, transversely convex; the side margin not crenate, but infringed on by the punctures bearing the intramarginal tactile setæ, of which there are six on each side; hind angles rather obtuse, the lateral fovea indistinct. Elytra large, parallel-sided, with regular, very broad, deep striæ, bearing coarse punctures. Front tibiæ with moderately long apical prolongation; middle tibiæ a little, hind tibiæ scarcely at all, incrassate at tip.

This bears a considerable resemblance to *M. monilifer*, Bates, the typical species of the genus, but is distinct by some important characters; the antennæ are shorter, and the pubescent areæ on their upper and lower margins are greater; the thorax has a basal prolongation; the elytra are deeply sulcate, and the tibiæ much less dilated at the extremity.

Picton. Helms, three examples, in bad condition.

#### ACALLISTUS (nov. gen. Broscinorum).

Ex affinitate generis *Promecoderi*, sed corpus superne subplanatum, et tarsi intermedii maris simplices, anteriores subtus imperfecte spongiosi.

The insect for which I establish this genus is very different from the other New Zealand Broscidæ, the thorax being finely margined at the sides, and furnished with only two tactile setæ, one some distance behind the front angle, and the other about equally as much in front of the hind angle. The antennæ are slender, pubescent from the fourth joint onwards; the front tibiæ are not at all prolonged externally; there is a seta in the scrobe of the mandible; the labrum is large, feebly emarginate—almost truncate in fact—in front, and its setigerous punctures are minute. The palpi are all slender, with slightly truncate apex; the lobes of the mentum rather short, and its excision has a small triangular tooth in the middle. The front tarsi of the male are but little dilated; the basal joint is rather elongate, and is furnished with a transverse patch of spongy clothing at its extremity; the second and third joints are nearly entirely covered beneath, but the small fourth joint appears to have no sexual clothing, though that projecting from the third joint somewhat covers its base. The intermediate tarsi in this sex are not dilated, and are without clothing.

The characters bring this genus very close to the well-known Australian genus *Promecoderus*, but the appearance is very different, owing to the comparatively flat upper surface of the body; and as the male feet present apparently well-marked differences from those of *Promecoderus*, it would not be proper to place the New Zealand insect in that genus.

*Acallistus simplex*, n. sp.—Niger, supra subviridescens, subopacus, antennis tarsisque piceo-rufis; prothorace posterius angustato, transversim subtiliter strioso; elytris striatis, striis punctatis. Long.  $10\frac{1}{2}$  m.m.

Head dull black, without sculpture. Thorax just as long as broad, truncate in front, curved at the sides, considerably more narrowed behind than in front; hind angles extremely obtuse; the surface dull, without any punctuation; channelled along the middle, the channel equal abbreviate in front and behind, with a few fine, but distinct, transverse wrinkles. Elytra much curved at the sides, with distinct, but quite shallow, striæ, which are somewhat coarsely, but obsoletely, punctate, and are obsolete at the sides and apex. The legs are black, the tarsi pitchy red.

New Zealand. Castlenau, a single example. This insect has, perhaps, more the facies of *Adelium aucklandicum*, Broun—one of the *Heteromera*—than of any New Zealand *Carabidæ*.

#### CTENOGNATHUS (Fairm.)

This name was proposed by Fairmaire (Ann. Soc. Ent. France, 1843) for a New Zealand *Carabid*, but was afterwards treated as a synonym of *Anchomenus* or *Colpodes*, because the character relied on by Fairmaire for its differentiation proved to be unsatisfactory. On examining for the purposes of this paper the New Zealand *Anchomeni* and *Colpodes* in my collection, I have discovered that a character hitherto neglected divides them very satisfactorily into two groups. In certain species there is only one tactile seta on each side of the thorax, placed in front of the middle, while in others there is a second seta placed at, or on, the posterior angle. This latter is the normal condition in the group of *Carabidæ* to which these insects belong; and in fact I have not\* been able to find amongst the exotic *Colpodes* at my disposal any species similar to the New Zealand species above alluded to, and as it was for one of these that Fairmaire proposed the name *Ctenognathus*, I propose to restore it to these forms. *Ctenognathus* then will include such of the New Zealand *Carabidæ* hitherto placed in *Colpodes* or *Anchomenus* as possess only a single lateral seta on each side of the thorax, placed in front of the middle. In addition to the two species I here describe, the genus will include *Colpodes bidens*, Chaud. and pretty certainly also some of the other species of *Colpodes* and *Anchomenus* described by Chaudoir and Broun, but not known to me as yet.

*Ctenognathus latipennis* (new name).—*Anchomenus elevatus*, Bates, Ann. Nat. Hist. XIII, p. 10 (reprint) nec White. Robustus, latior, niger, antennis palpisque rufis, pedibus piceis; prothorace lato angulis posterioribus perobtusis; elytris profunde striatis, striis haud punctatis, interstitio secundo puncto unico versus apicem sito. Long.  $13\frac{1}{2}$  m.m.

The salient characters of this species have been mentioned by Mr. Bates as

\* See notes added during press, No. 2.

above. The thorax is very broad, the length however being more than three-fourths of the width, without sculpture, with the lateral margin rather broadly and evenly reflexed from base to apex, the base a little narrower than the front, the hind angles unusually obtuse. The elytra are very broad, rather short, very deeply and evenly striate, with a single puncture placed near the extremity of the second interstice. The grooving of the tarsi is variable in its development; it may be, and usually is, nearly entirely absent, but in other examples there is a distinct groove on each side of the middle of the basal joints, extending sometimes as far as the fourth. The male has three, the female five setigerous punctures on each side of the hind margin of the last ventral segment. The only examples I possess of this species were found at Auckland by Lawson, as recorded by Bates. It is allied by the single puncture on the second interstice to *Colpodes neozealandicus*, Chaud. Whether this latter species be *C. novæzealandiæ*, Fairm. or not I cannot say; Fairmaire's species is not alluded to by Chaudoir.

It may here be useful to state, for the information of New Zealand naturalists, that in the *Annales de la Société entomologique de France*, 1878, Chaudoir has described five species from New Zealand purporting to be new, viz., *Colpodes neo-zealandicus*, p. 294, *bidens*, p. 303, *crenatus*, p. 304, *cardiophorus*, p. 305, *macropterus*, p. 370. These are not alluded to by Broun, so that it is probable that some of his numerous species may be synonymous with those of Chaudoir.

*Ctenognathus pictonensis*, n. sp.—Niger antennis pedibusque læte rufis; prothorace cordato, secundum latera fortiter depresso, angulis posterioribus argute rectis; elytris fortiter profundeque punctatis, apicibus prolongatis, interstitio secundo ante apicem puncto unico notato. Long. 11 m.m. (Plate XII, fig. 5.)

This species is distinguishable by the bright-coloured legs and antennæ, the deep striation of the elytra, and the very cordate thorax, whose hind angles are sharply rectangular; the lateral margin of the thorax appears much elevated, owing to a depression extending parallel to it, and within this there is a second curvate feeble impression; the surface near the hind angles is greatly depressed, the median channel and the anterior transverse impression very deep; there is no distinct punctuation or rugosity. The very deep elytral striæ are, when strongly magnified, seen to be only very indistinctly punctured; their apices are gently sinuate and a good deal prolonged. The tooth of the mentum is entire, but broad and truncate at the apex: the fourth joint of the hind tarsus feebly emarginate, the surface of the tarsus deeply grooved on each side of the middle, and with a less distinct lateral groove.

This is readily distinguished from *A. helmsi*, which has similarly coloured legs and antennæ, by the remarkably deep striation of the elytra, and by there being only one tactile seta on each side of the thorax.

Picton, Helms, a good series.

## PTEROSTICHINI.

Having made a short study of such New Zealand members of this group as are at my command, I subjoin a table of their genera or sub-genera which I hope may be found to facilitate future research.

Metathoracic episterna elongate, . . . . .	Rhytisternus Chaud.
Metathoracic episterna short.	
1. Prosternum with setæ at tip, . . . . .	Trichosternus Auct.
1A. Prosternum without setæ at tip, . . . . .	2.
2. Basal joint of antenna impressed and subcarinate, . . . . .	Zeopœcilus (sub. gen. nov.)
2A. Basal joint of antenna simple, . . . . .	3.
3. Scutellum striate at base, . . . . .	4.
3A. Scutellum not striate, . . . . .	5.
4. { A Thorax with four lateral setæ, . . . . .	Pterostichus subœneus group.
{ B „ „ three „ „ . . . . .	„ elongellus.
{ C „ „ two „ „ . . . . .	„ longiformis group.
5. Elytra with two or three punctures on third interstice, . . . . .	Haptoderus Bates (auct.?).
5A. Elytra without interstitial punctures, . . . . .	Pterostichus helmsi.

The above scheme brings into moderately good order the New Zealand forms at present known to me, but as it is sure to require modification in the future—the species at my disposal being certainly only a minority of those existing—I have not thought it desirable to give special names to the groups except in the case of *Zeopœcilus*; especially, too, as a great deal remains to be done in correlating these insects with their allies in other countries, the Pterostichini being one of the most widely distributed and complex of all the groups of Carabidæ. As regards this part of the question, it may be remarked that *Rhytisternus* and *Trichosternus* are Australian forms, while the other sections have apparently affinities with the Pterostichi of the Northern hemisphere. For instance, group 5a—of which *Pterostichus helmsi* is at present the sole representative—has no salient character to distinguish it from the European insects now ranged under *Pterostichus*, but at the same time it does not recall to the eye any of the groups of that genus except it be *Steropus*, and of this it wants precisely the distinctive character, viz., the short (in the transverse direction), thick basal margin to the wing-case; on the other hand, *Pterostichus brounianus*, belonging to the group or groups hitherto called *Holcaspis* (and differing therefore from *Steropus* which has the scutellum estriate) has the *Steropus* facies as well as the characteristic *Steropus*-structure of the shoulder. It will be observed that I have not used the name of *Holcaspis* in the table; this is because I have satisfied myself that the scutellar character has only been very imperfectly studied, and species differing much in other respects possess this in common. I have introduced the thoracic lateral setæ as a means of classification, and as regards this I should remark that though apparently but little variable within specific limits, yet when the normal number of setæ is departed from by

increase it occasionally occurs that one or even two of the additional setæ may be duplicate on one of the sides of the thorax, though rarely or never on both sides; thus though the character appears to be really an important one, it must be used with some caution as to this point.

#### PTEROSTICHUS.

*Pterostichus* (*Trichosternus*) *compressus*, n. sp.—Niger, supra fusco-æneus, limbo anguste viridescente, antennis pedibusque piceis; prothorace anteriorius minus lato, prope angulos anteriores depresso, angulis posterioribus rectis; elytris sat profunde striatis, striis impunctatis. Long. 21–23 m.m. (Plate XII, fig. 6.)

This is one of the allies of *P. sylvius*, Bates, a group of species, or perhaps varieties, very difficult at present to distinguish; it is, however, not so green in colour as *P. sylvius*; the striæ of the elytra are almost impunctate, and the thorax is rather longer, the basal portion, as shown by the sinuation at the sides, being longer, and the male front tarsi considerably less dilated. The hind angles of the thorax are not at all directed outwards, and are nearly rectangular, very slightly obtuse; the tooth formed by the basal margin of the wing-case is very distinct. *P. rectangulus*, Chaud., and *P. capito*, White, have the thorax broader at the front margin, and this is also the case with *P. aucklandicus*.

Picton. Helms, a series of ten individuals, showing but little variation.

*Pterostichus* (*Zeopœcilus*) *calcaratus*, n. sp.—Niger, supra fusco-æneus, prothorace cupreo-aurato, antennis pedibusque piceis; elytris profunde striatis, striis subtiliter punctatis. Long. 20–22 m.m. (Plate XII, fig. 7.)

Mas., elytris nitidis interstitiis convexis; tibiis posterioribus apice intus calcare acuminato-hamato armatis.

Fem., elytris opacis, interstitiis haud convexis.

Antennæ with a depression on the upper face of the basal joint. Thorax strongly transverse, with much rounded sides; these sinuate behind, so as to give rise to a well-marked basal constriction; hind angles rectangular; surface coppery, more golden about the foveæ; these broad, quite impunctate, not touching the lateral margin. Elytra with rounded sides, strong humeral denticulation, and very regular striæ; the interstices of these a little transversely waved on the apical portion. The male has one, the female two, setæ on each side of the hind margin of the last ventral segment. The sexes differ a good deal in the elytral sculpture, as mentioned above.

Picton. Helms, a good series of nearly twenty examples.

N.B.—This, and the allied species, *P. achilles*, *putus* and *combesi*, form a distinct sub-genus, distinguished from *Trichosternus* by the absence of setæ on



the prosternum, and by the peculiar structure of the basal joint of the antennæ; this latter character is a very interesting one, and is analogous to our European *Pœcilus*, to which sub-genus these New Zealand insects are most nearly allied. Although Brown failed to observe the absence of the prosternal setæ in the species he described, yet his acute eye detected the antennal structure; so I have little doubt his two (? are they not the sexes of one) species really belong to this group.

*Pterostichus* (*Zeopœcilus*) *achilles*, n. sp.—Niger, supra fusco-æneus, prothorace cupreo-aurato, antennis pedibusque piceis; elytris elongatis, sat profunde striatis, striis vix perspicue punctatis, interstitiis convexis, postice transversim subimpressis. Long. 21–23 m.m.

Mas, tibiis posterioribus apice calcare robusto apice rotundato-hamato armatis; tarsis articulo basale intus dilatato.

Thorax strongly transverse, the sides rounded, a good deal narrowed behind; the basal impressions large; the hind angles rectangular, slightly obtuse; the surface coppery, about the foveæ more golden.

This species is closely allied to *P. calcaratus*; but so far as the male is concerned can be readily distinguished by the form of the basal joint of the hind tarsus, and by the broader less acuminate prolongation of the tibia; it has, too, the basal portion of the thorax shorter, and the elytra more elongate and oblong, and these two latter characters will probably permit the discrimination of the females. The latter sex I do not know, but probably it will be extremely similar to *P. calcaratus* ♀.

This insect almost agrees with Brown's description of *Trichosternus putus* (*New Zealand Journal of Science*, Sept., 1882), but there are no setæ on the prosternal process, so that it is not a *Trichosternus*; and although it will probably be found that Brown overlooked this fact when describing *T. putus*, yet I can scarcely think the two identical, as *P. achilles* is not tinged with green, and the elytral striæ are only extremely feebly punctulate.

Picton. Helms, two male examples.

*Pterostichus brounianus*, n. sp.—(Scutello basi minus argute plicato). Robustus, niger, antennis pedibusque piceis; prothoracis lateribus rotundatis, angulis posterioribus valde obtusis; elytris profunde striatis, striis vix punctatis hic inde parum conspicue interruptis. Long. 19–20 m.m.

This species, belonging to the group with four setæ on each side of the thorax, is distinguished by the unusually great curvature of the sides of the thorax, and the very obtuse hind angles, as well as by the large size. There is no denticulation of the humeral angles, and the striation of the elytra is deep, so that the interstices are distinctly convex; the indistinct punctures of the striæ are less close than usual, and the striæ are only vaguely and indistinctly interrupted.

There is a simple deep fovea on each side of the thorax at the base, distant from the lateral margin. The male has the hind femora angularly dilated in the middle, and only a single seta on each side of the hind margin of the last segment, whereas in the female there are two setæ on each side.

I have named this species in honour of Captain Thomas Broun, who has rendered great service to entomology by the discovery of a great number of New Zealand insects whose existence was previously unsuspected.

Picton. Helms, a good series.

*Pterostichus myrmidon*, n. sp.—(Scutello basi striato). Elongatus, supra subplanatus niger, antennis tarsisque piecis; prothorace vix transverso, angulis posterioribus argutis fere rectis; elytris striatis, striis ubique a basi ad apicem interruptis. Long 16–17 m.m. (Plate XII, fig. 8.)

This species is very different from the others of the group with four thoracic setæ, the thorax being more quadrate, and the general outline more parallel. The thorax is but little curvate, and is slightly narrowed behind, but its outline is only very slightly sinuous. There is an extremely minute projection outwards of the hind-angle itself, so that the angles which, except for this, would be slightly obtuse, are almost rectangular. The surface is feebly transversely rugose; the basal foveæ are large and deep, distant from the sides; and between each and the outside there is at the base a distinct plication. The striation of the elytra is interrupted throughout in a very distinct and almost regular manner. The hind femora of the male are much swollen in the middle, so as to form an angular prominence; they are also very broad in the female, but in this sex the prominence does not form an angle. In each sex there are two punctures on each side of the middle of the hind margin of the last ventral plate.

I have little doubt that *Holcaspis cribratus* Brown is allied to this species, but it is described as possessing a rugose head, and a more remarkable development of the peculiar sculpture of the elytra. *P. myrmidon* bears a considerable resemblance in size, form, and sculpture to *P. cribratus* Dej., found on Monte Rosa in Europe. *Holcaspis hispidulus* Brown no doubt pertains also to this group, as shown by the number of thoracic setæ mentioned in his description. It has apparently a very different sculpture of feeble abbreviate striæ.

Picton. Helms, a good series.

*Pterostichus constrictellus*, n. sp.—(Scutello basi striato). Angustulus, niger, antennis tarsisque piecis; prothorace posterius angustato, angulis posterioribus obtusis; elytris striatis, striis punctatis. Long. 11–12 m.m.

Thorax a good deal broader than long, the sides a little curved, considerably narrowed behind, so that the base is evidently a little narrower than the front

margin, without the least sinuation at the sides, so that the hind angles are obtuse; the basal foveæ deep, distant from the sides. Elytra narrow, without humeral denticle, the striæ regular, rather deep, closely and regularly punctate, not interrupted; the interstices in the male rather more convex than in the female. In the male the hind femora are a little dilated in the middle, so as to form an obtuse prominence, not an angle; in each sex there are two punctures on each side of the hind margin of the last ventral ring.

The individuals of this species are the smallest I am acquainted with of the group having four lateral tactile setæ to the thorax. *P. subænea* Guer., Bates, is very similar, but has the sides of the thorax sinuate behind, and the striation coarser and less regular. This is the species treated by Bates as the *F. elongella* White, and it is indeed so similar thereto, that I also myself, previously to noting the difference in the thoracic setæ, considered it a small variety thereof; hence my remarks in New Zealand Journal of Science, 1884, p. 298, on White's *Feronia elongella*, require correction as regards the occurrence of *F. elongella* at Christ Church; it being *P. constrictellus* that has been found there. *F. elongella* has the peculiarity—unique, so far as I know, among the New Zealand species—of possessing three lateral thoracic setæ, one at the hind angle, one a little behind the front angle, and one just about the middle.

Christ Church, Wakefield, Helms. Greymouth, Helms. One example from each source.

*Pterostichus longiformis*, n. sp.—(Scutello basi striato). Minor, angustulus subparallelus nigro-piccus, nitidus, antennis pedibusque piceo-rufis; prothorace elongato, basi utrinque bifoveolato, angulis posterioribus rectis; elytris oblongis, regulariter profunde striatis, striis impunctatis. Long. 11 m.m.

A distinct species belonging to the group with only two lateral thoracic setæ, and probably allied to *P. sylvaticus*. The thorax is elongate, the length being five-sixths of the width. The sides are very gently sinuate behind, the external angles being rectangular, quite minutely prominent externally. The two basal foveæ on each side are shallow and indefinite, the outer one small. The striæ on the base of the scutellum are deep and definite; the elytra are narrow, parallel, flat, with slight humeral denticle, and very regular, deep striation, the striæ being simple. In the male the hind femora are much swollen, and are angular in the middle. There is only one puncture on each side of the last ventral segment. The female is unknown.

This appears to be allied to *P. angustulus* Chaud. (*elongatus* Blanchd.), as well as to *P. sylvaticus* Chaud., but does not sufficiently agree with either description.

Christ Church, Wakefield. A single example.

*Pterostichus oscillator*, n. sp.—(Scutello lævigato). Nigerrimus, antennis extrorsum tarsisque piceis; antennis gracilibus, oculis convexis; prothorace basi

utrinque fovea elongata lineare, angulis posterioribus exacte rectis; elytris regulariter sat profunde striatis, striis fere impunctatis, interstitio tertio bi vel tripunctato. Long. 13 m.m.

Antennæ slender, with the fourth joint rather longer than the third. Head short, with prominent eyes, and with two foveæ near the front. Thorax flat, about one-fourth broader than long, the sides a little narrowed, and slightly sinuate behind; the central channel deep, extending from base to the front margin, half-way between it and the side with an elongate channel-like fovea. Elytra with slightly rounded shoulders, destitute of denticle, the striation regular and rather deep, with two or three large punctures placed on the third interstice touching the third stria. The male has the hind femora simple, and one seta on each side of the last ventral segment.

This is, no doubt, allied to *Haptoderus maorinus* Bates, which, however, is only 7 or 8 m.m. long, and is almost destitute of frontal impressions. Although no doubt the type of a distinct group, or sub-genus of New Zealand *Pterostichi*, I somewhat doubt the propriety of associating this insect with the European *Haptoderi*, though no doubt the structural characters of the New Zealand and European species, so far as yet observed, are very similar. The labrum in the New Zealand insects is very short and broad, the mandibles short and stout, smooth, not striate above, the left one with slender and elongate incurved apex, the fourth joint of antennæ longer than the third, the thorax with a front margin, two lateral setæ, and the scutellum estriate.

Dunedin and Otago. Sent by Professor Hutton in 1876 and 1877, two male examples.

*Pterostichus ovatellus* Chaud.—(Scutello basi striato). *Nigerrimus*, femoribus piecis; prothorace evidentè transverso, basi utrinque unifoveolato, angulis posterioribus subrotundatis; elytris profunde fortiterque striatis, striis punctatis, interstitio tertio bi vel tripunctato. Long. 17 m.m.

This is a peculiar species, with thorax only three-fourths of its width in length; a single deep fovea on each side the thorax, without any trace of external plication; only two lateral setæ on the thorax. The clytral striæ very deep, and with two or three punctures (placed variably and irregularly) on the third interstice, and the shoulder and basal margin of the elytra formed as in *P. constrictellus* and *elongellus*. It quite agrees with those two species in appearance, but departs greatly from them by the number of the thoracic setæ, and by the interstitial punctures on the wing-case. The male has the front tarsi much dilated, the hind femora a little thickened in the middle, but not angular, and two punctures on each side of the hind margin of the last ventral segment.

New Zealand; Castlenau. Chaudoir was not acquainted with the male, and I have not seen the female. Chaudoir's examples, like my own, came from Castlenau, and I feel little doubt of the correct identification.

## ZOLUS (nov. gen. Zolinorum).

The insect for which this generic name is proposed has peculiar characters, so that its position and affinities cannot be determined with precision at present, and must be a subject for future discussion; meanwhile it may be treated as forming a distinct group, which perhaps will be best placed near the Zabryni, and will be called Zolini.

The size is rather small, and the appearance somewhat that of the smaller Pterostichi, such as Haptoderus or Argutor; the base of the thorax is very closely adapted to the base of the elytra, which it overlaps. The basal joint of the front tarsus in the male is large, and its front side is produced so as to form an angle and make the joint unsymmetrical in form; the second joint is much smaller than the first, but is similarly formed; the third and fourth joints being small and symmetrical in form. The undersurface of the two dilated joints bears fine elongate hairs, and the anterior side (*i.e.* the side most produced) bears also papery-like squamæ; the middle tarsi are simple, as also are the claws. There is only one orbital seta. The mentum and ligula are of ordinary Pterostichoid form, the former with a strong tooth in the middle, the latter slightly acuminate in the middle, with small paraglossa projecting beyond it on each side. The second joint of the labial palpus is very feebly bisetose, the terminal joint about as long as the second; rather slender acuminate. The maxillary lobes are not very long, and are of very ordinary form; the corresponding palpi are not stout; the second and third joints subequal in length; the third broadest at its apex, where it is rather closely connected with the terminal joint, which is slender and acuminate, scarcely so long as the third joint. The mandibles are short, and the right one is very obsolete armed with a single tooth in the middle, and there is a feeble external seta. The labrum is transverse, with straight front margin, bearing six setæ. The thorax is well margined at the sides, and is destitute of tactile setæ. The scutellum is visible, and its broad short extremity penetrates between the basal margins of the wing-cases. The elytra have no erect setæ, and no larger lateral punctures, except that near the base there are close to the side margin three or four feeble punctures bearing very feeble setæ. The elytra are not in the least truncate, only feebly sinuate near the extremity, and at the point of sinuation the thin edge is traversed by an oblique groove. There are no wings, but the elytra are not soldered. The prosternal process is short and bent upwards. The mesosternal epimera are quite slender, well separated from the coxal cavities; the metasternum small, with short broad episterna; the hind coxæ contiguous; the ambulatorial setæ of the ventral segments feeble.

It will be seen from the above characters that this insect departs from the Pterostichini by the important characters of the form and condition of the male

tarsi, and by there being but one orbital seta. I have not yet alluded to the condition of the antennæ, because these are in a singularly doubtful condition as to the pubescence of the basal joints; the first is free from pubescence; the rather elongate second joint is scantily pubescent on the apical part; the third joint is very elongate, and is glabrous at the base, pubescent elsewhere, the following joints being closely pubescent; thus the second and third joints show a gradual transition from the glabrous to the pubescent condition. The form of the male tarsus is an affinity with *Pogonus*. The position in the New Zealand Catalogue will be between the *Pterostichini* and *Harpalini*. It should be remarked that in this genus the mandibular seta is of little importance; always very feeble, it appears to be occasionally entirely absent from one or the other mandible.

*Zolus helmsi*, n. sp.—Piceo-castaneus, antennis rufis pedibus castaneis; prothorace anterieus fortiter rotundato, basi truncato, ante basin punctato, utrinque prope latus argute plicato; elytris profunde striatis, utrinque versus apicem plica elevata, interstitio tertio obsolete tripunctato. Long 8 m.m. (Plate XII, fig. 11.)

The head is quite short, deeply impressed on each side between the eyes, which are rather large. The antennæ are slender and rather long, each joint being much longer than broad, and the second joint about as long as the basal. The thorax is not much broader than long, with rectangular hind angles, and broader at the base than at the front margin. Very near the lateral margin at the base there is a very distinct straight plica, and within this plica the surface is depressed, uneven, and punctate, the punctuation not quite reaching the plica itself. The median channel does not reach the front, but extends to the base, though indistinct behind, owing to the sculpture there. The striation of the elytra is regular, and there is a stria near the scutellum. The striæ are not punctate, the interstices are flat, the plication behind very distinct. The first of the three punctures on the third interstice is placed as far forward as the termination of the scutellar stria, the second as far behind it as it is from the base, while the third is remote, placed at about two-thirds of the length.

Greymouth. Helms, No. 276. I have much pleasure in connecting Mr. Helms' name with this interesting form. Some years ago I received a specimen from him which I could do nothing with as it was a female; after waiting a long time he has been able to send me the male.

#### SYMPIESTUS (nov. gen. *Pterostichinorum*).

Labrum very short, deeply emarginate, so that its angles are prominent. Mandibles rather elongate, little curved, with external seta. Palpi with the terminal joint a little incrassate, oval and acuminate, that of the maxillary palpi twice or three times as long as the penultimate joint, which is much abbreviated;

excision of the mentum shallow, not toothed. Antennæ with the three basal joints glabrous, the third joint being, however, feebly pubescent above. Head with two orbital setæ. Thorax margined laterally, with two lateral setæ, normally placed; closely applied to the base of the elytra. Epipleura oblique, grooved near the apex. Metasternum very small. Male anterior tarsi with three joints feebly dilated and furnished beneath with squamæ.

The insect for which this genus is established has quite the appearance of a small *Pterostichus*, but will be very readily identified by the peculiar palpi and labrum. It should, I think, be placed near *Cyclothorax* and *Tarastethus*. The former genus is at present placed by systematists in the *Anchomenini*, but it must be removed from thence, as the epipleuræ are traversed near the apex by a slender deep groove, as in the present genus. *Tropopterus* should be removed from the New Zealand list, and its species placed in *Tarastethus*. These obscure New Zealand genera are of rather difficult classification, and will perhaps ultimately form a distinct tribe near the *Pterostichini* and *Trechini*.

*Sympiestus syntheticus*, n. sp.—Subparallelus, niger, antennis rufis, articulo basali pedibusque piceis; prothorace subquadrato, basi utrinque fovea elongata sulciforme; elytris parum profunde striatis, striis conspicue punctatis. Long.  $6\frac{1}{2}$  m.m. (Plate XII, fig. 10.)

Antennæ rather short; basal joint stout, darker than the others; second joint short, not half the length of the first; third greatly longer than the second, equal to the fourth. Head narrow, with small but convex eyes, and two large depressions in front. Thorax elongate, but a good deal shorter than broad; the sides finely marginate, a little narrowed and sinuate behind; hind angles nearly rectangular, a little obtuse, the base slightly broader than the front margin; the surface very shining, with a median channel starting from the base, but not reaching the front; base impunctate, with a rather elongate canalicular fovea half-way between the channel and the side. Exposed portion of scutellum broad, extremely short. Elytra with the posterior line of basal margin reaching only as far inwards as the fourth stria. Their surface is rather dull, and the two or three striæ towards the side are almost obliterated. There is no raised apical plica.

Bealey. Helms, three examples.

#### TARASTETHUS.

*Tarastethus debilis*, n. sp.—Piccus, antennis pedibusque testaceis; prothorace basi punctato, angulis posterioribus minute prominulis, subobtusis; elytris sat profunde striatis, striis subcrenato-punctatis. Long.  $4\frac{3}{4}$  m.m.

Antennæ rather feeble. Head rather narrow; eyes small and not prominent. Thorax finely and very evenly margined at the sides; the sides much curved,

scarcely at all sinuate behind; the base a little rounded on each side, so that the hind angles would be quite obtuse except that they are a little prominent externally, finely punctate across the basal portion, with fine median channel, but without lateral impression. Elytra with the sutural striæ rather deep, the external finer; their punctuation of a rather peculiar nature, so that it is intermediate between crenation and punctuation.

This species has a very Trechoid appearance, and will be distinguished by its small, smooth eyes. Although I have seen only two females, I do not detect anything to distinguish it from this genus.

Bealey. Helms, two examples.

#### TACHYS.

*Tachys latipennis*, n. sp.—Testaceus, plus minus ve picescens, nitidus, antennis palpis pedibusque testaceis; prothorace cordato, angulis posterioribus rectis; elytris striis duabus ad suturam sat profundis, striaque tertia minus distincta. Long.  $2-2\frac{1}{2}$  m.m.

Antennæ feeble, second joint elongate, longer than third. Eyes small, head biimpressed between them, the impressions rather widely separated. Thorax a little curved at the sides, narrowed and sinuate behind, the hind angles sharply defined, exactly rectangular. There is a rather fine channel along the middle, and a fovea at the base on each side. The elytra are broad and short, with the shoulders perfectly rounded. The sutural stria is deep, and extends to the apex. The second stria is also rather deep, but does not extend on to the apical portion; and there is a third indistinct stria. The striæ external to these are almost entirely obliterated. The apical plica is very distinct, and there are two obsolete setigerous punctures on the third interstice. The oblique truncation of the anterior tibia is excessively slight.

Greymouth and Kumara. Helms, No. 275.

#### CILLENUM.

*Cillenum batesi*, n. sp.—Oblongo-ellipticum, convexum, politum, pallido-testaceum, capitis vertice elytrorumque disco vix infuscatis; thorace cordato, basi depresso, subplicato; elytris substriatis, margine laterali crassiusculo, interstitio tertio tripunctato. Long.  $4\frac{1}{4}$  m.m.

This is very closely allied to *C. albescens*, though easily distinguished by the almost complete absence of the dark variegation of the upper surface. The margin of the elytra also is less prominent at the extremity.

Mr. Bates has discussed at some length the points of resemblance and contrast between the New Zealand and European *Cillenum*, deciding on considering them



at any rate provisionally as congeneric. I fancy, however, that when we can obtain specimens for an exhaustive examination, that they will have to be generically separated.

Otago. Sent by Professor Hutton in the year 1878, but only one example.

*Cillenum* (?) subcæcum, n. sp.—Minutissimum, testaceum, impunctatum, brevissime setigerum; oculis minimis. Long.  $1\frac{1}{2}$  m.m.

Antennæ very feeble, almost white; second joint elongate, longer than the third. Head narrow, eyes very minute, interocular grooves shallow. Thorax transverse, sides curved, narrowed but not sinuate behind; hind angles extremely obtuse, median channel subobsolete, basal impressions very obscure. Elytra narrow, humeral angles rounded, lateral margin well marked, apices subtruncate, without punctuation, but under a half-inch power appearing finely reticulate, studded with minute setæ, especially on the lateral margins. Front tibiæ stout.

This is one of the most minute of the Carabidæ, and its almost blind condition renders it possible that it may be one of a group of species with subterranean habits, analogous to the minute European *Scotodipni* and *Anilli*. I obtained it some years ago from Herr Reitter, and I expect that when specimens come to hand to enable it to be thoroughly investigated, it will prove to be sufficiently generically distinct. I cannot place it in *Scotodipnus* nor *Anillus*, though it is apparently nearer to the former than to the latter of these two genera; and as it has somewhat the form of the New Zealand *Cillena*, I associate it provisionally with them. The robust front legs are rather remarkable in so minute and fragile an insect, but do not indicate any real affinity with the *Dyschirioid* genus *Reicheia*, which consists also of minute blind species.

Greymouth. Helms, ex Reitter.

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### Fam. STAPHYLINIDÆ.

#### *APHYTOPUS* (nov. gen. *Aleocharinorum*).

Tarsi omnes quinque articulati, articulis quatuor primis subequalibus, articulo ultimo inflato, unguiculis magnis.

The minute insect for which I propose the above generic name can scarcely fail to be distinguished from all the known genera of *Aleocharini* by the very peculiar structure of the tarsi, the terminal joint being not only incrassate, but of peculiar shape, looking in fact as if it were a bilobed joint, and the lobes were folded along the middle, and their underfaces applied to one another. The large

unguiculi are but little curved, and as they project considerably beyond the joint itself, the foot has at first sight the appearance of being like that of the *Phytophaga*. The basal joint of the maxillary palpi is minute, the second elongate and slender, the third oval, the fourth very minute; the other parts of the mouth I cannot see sufficiently for description. The antennæ are inserted near the front of the head, and there is no trace of any tubercle at their point of insertion; they are eleven-jointed. The genæ are strongly margined. The side-piece of the thorax is large, almost triangular in form, and projects downwards and inwards, so that in its form and position it much resembles that of the *Pæderini*. The front coxæ are very exerted, and of the ordinary *Aleocharoid* form. The middle coxæ are contiguous, the metasternum rather elongate.

This peculiar little form is, I have little doubt, correctly placed in the *Aleocharini*, though the thoracic structure is a little like that of the *Pæderini*. The number of joints in the tarsi range it in the *Aleocharates*, but I do not know of any near ally to it.

*Aphytopus gracilis*, n. sp.—*Angustulus*, rufotestaceus, elytris versus apicem, abdomine ante apicem antennisque extrorsum fusciscentibus; prothorace subquadrato dense fortiterque punctato, dorso vix perspicue longitudinaliter biimpresso. Long. 3 m.m.

Antennæ slender, but distinctly thicker from the third joint to the apex, second remarkably elongate, equal to the first, and twice as long as the slender third joint; the two penultimate joints transverse; terminal joint rather elongate, acuminate. Head narrow, narrower than the thorax, and only about half as broad as the elytra, gradually narrowed behind the eyes, rather closely punctate, and bearing a fine erect pubescence. Thorax much narrower than the elytra, broader than long; the base and the sides nearly straight, the latter rounded at the front angles; the surface dull, unusually densely and distinctly punctate. Elytra a good deal longer than the thorax, rather coarsely, not densely punctate. Hind body with the basal segments densely, the apical obsoletely punctate. Legs pale yellow.

The only example I have seen was sent to me many years ago by Mr. Lawson from Auckland.

#### CAFIOQUEDUS (nov. gen. *Quediinarum*).

Prothorax lateribus ad basin mediocriter inflexis, antice haud inflexis, lineis marginalibus tantum ad angulos anteriores conjunctis, his valde deflexis, rotundatis, breviter liberis. Genæ immarginatæ. Tarsi anteriores in utroque sexu modice dilatati.

This curious insect may, I believe, be considered as an aberrant member of the Quediina. It has, perhaps, more the aspect of a Cafius than of any other known genus, but it differs totally therefrom by the structure of the side-piece of the prothorax. I have pointed out elsewhere that the essential character by which the Quediina are distinguished is that the prosternum is not placed quite at the front of the thorax, but leaves the anterior angles free and projecting. This is the case in Cafioquedus, though to a slighter extent than in the other genera of the group. Looking on the genus as a member of the Quediina, the very peculiar form of the prothoracic side-piece, which in front is scarcely at all inflexed, is diagnostic: both marginal lines are quite distinct till the front angles are reached, and exactly at this point they are joined. The other characters throw but little light on the affinities, though the general structure is apparently much that of Philonthus. The antennæ are similar to those of the larger Philonthi; the labrum very short, quite divided; the mandibles long and slender, dentate in the middle. The ligula is apparently bilobed, but of this I am not quite sure. The labial palpi are rather slender, with the terminal joint quite slender, sublinear, a good deal longer than the penultimate joint. The penultimate joint of the maxillary palpi is broader at the apex than at the base; the terminal joint of very slender oval form, slightly shorter than the penultimate. The middle coxæ are slightly separated.

*Cafioquedus gularis*, n. sp.—Elongatus, subcylindricus, niger, parce albido-pruinosis, capite subtus gula sanguinea; prothorace transversim fortiter convexo angulis anterioribus per-deflexis; elytris thorace longioribus, obsolete sculpturatis, opacis. Long. 15 m.m. (Plate XII, fig. 13.)

Antennæ black, moderately slender; third joint longer than second; joints 4–10 each minutely red at the base, the penultimate 3 or 4 joints each slender at the base, the penultimate not so long as its greatest width; terminal joint short, strongly obliquely sinuate. Head rather elongate, eyes rather large, sides for some distance behind them almost straight, then distinctly narrowed to the broad neck; along the inner margin of the eyes is a series of coarse punctures, and between this series and the neck are some other coarse punctures, marking off a rather large space about the hind angles on each side, which is finely punctate, and bears a scanty white pubescence. Thorax rather long, black, shining, and impunctate, except that there is a space along each side dull, obsoletely punctate, and bearing some white pubescence. Scutellum elongate. Hind body rather closely and finely punctate, with scanty white pubescence. Underside of head and neck red; at each side behind the eye there is a dull punctate space bearing white hairs. Legs black, griseo-pubescent. Underside of hind body rather obsoletely punctate, with some coarse numerous punctures irregularly placed on each segment. The male has a deep incision on the last ventral plate, and an

emargination of the hind margin of that preceding it. The tarsi are moderately dilated in each sex.

North Island (Castlenau). Bealey (Helms).

#### QUEDIUS.

*Quedius antipodum*, n. sp.—Major, latus, nigerrimus; clypeo membranaceo, flavo; prothorace amplo, elytris latiore. Long. 15–21 m.m.

Antennæ entirely black, rather stout, penultimate joint scarcely so long as broad. Head short and broad, with large yellow membranous clypeus, to which is attached the large labrum; this is broadly emarginate in the middle, armed with very long black setæ, and increased by a large membranous border. An irregular series of large punctures extends from front to back, along the inner margin of the eye, and there are some fine punctures on the side behind the eye. Thorax more than one and a-half times as broad as long, with excessively broadly rounded hind angles, the front margin sinuate on each side. Scutellum and elytra closely punctate, dull. Hind body broad, closely punctate, black, with some iridescent reflections. Male with a broad shallow emargination on the last ventral ring, and the front tarsi rather strongly dilated. Female with the tarsi rather less dilated.

This is another species, very distinct from its New Zealand congeners, and suggesting by its form, size, and colours, an affinity with the European genus *Velleius*. I sent it some years ago, under the above name, to M. Fauvel, and he intended to describe it under the name of *Q. flavilabris*. As this is not a very good name, the labrum not being yellow, I have preserved the name I first suggested.

Dunedin (G. M. Thomson). Greymouth (Helms).

*Quedius edwardsi*, n. sp.—Elongatus, angustus, piceus, nitidus; elytris prothoracis longitudine, fortiter punctatis; abdomine elongato, fortiter punctato. Long. 13 m.m.

Antennæ slender, obscure red, tenth joint much longer than broad. Head short, clypeus distinctly marked off by a suture, but quite horny, the surface sparingly and finely punctate, eyes occupying rather more than half the length of the side, genæ not margined. Thorax transverse, a little rounded at the sides in front; the surface sparingly punctate, and with a large puncture on each side of the middle distant from the front margin, in addition to the marginal punctures. Scutellum large, coarsely punctate, like the elytra. Hind body coarsely punctate, rather shining, with iridescent reflections; terminal styles very long. Male with a small excision on the hind margin of the last ventral plate.

This is a very different species from any others known from New Zealand. I received an example of it from Mr. Henry Edwards about twenty years ago, and have named it after him. It has now been found by Helms at Picton.

*Quedius insolitus*, n. sp.—*Elongatus*, *angustulus*, *niger*, *antennis palpis tarsisque piceis*; *prothorace antrorsum fortiter angustato*, *angulis anterioribus valde depressis*, *disco utrinque punctis quatuor impressis*; *elytris elongatis, dense subtiliter punctatis*. Long. 13 m.m. (Plate XII, fig. 12.)

Antennæ long and slender, basal joint rather darker than the rest. Head oblong, eyes rather small, not occupying one-half the length; clypeus extremely short, horny, vertex over a large extent closely punctate, anterior portion of the surface quite smooth; genal sutures quite obliterated. Thorax quite as long as broad, of the usual form at the base, but much narrowed towards the front, and at the front margin with the angles so greatly deflexed, that the sides appear sinuate; the surface is shining black, with some sericeous reflections, and is remarkable by the four punctures placed near one another on each side of the middle. Scutellum elongate, densely and finely punctate. Elytra longer than the thorax, closely and finely punctate, dull. Hind body black, with some iridescent reflections, densely and rather finely punctate. Male unknown; female with the front tarsi a little dilated.

This peculiar insect will no doubt form the type of a distinct genus, though at present I cannot point to any character that appears to be of generic importance to distinguish it, except it be the comparatively short and stout basal joint on the hind feet.

New Zealand (Henry Edwards). Dunedin (Hutton, 1878).

*Quedius latifrons*, n. sp.—*Subdepressus*, *niger*, *capite thoraceque subæneis*, *elytris guttulis minutis obscure testaceis*; *abdomine iridescente, segmentis ad basin elytris ad latera setulis flavis parce variegatis*. Long. 10 m.m.

Antennæ rather slender, fuscous, the basal joints rufo-fuscous or piceous. Head broad and short, eyes large and prominent; a series of punctures along the margin of the eye, and two large impressions on the front; clypeus very short and broad, membranaceous, dusky; labrum rounded in middle, but increased by a pallid membranæ, which is emarginate in the middle. Thorax short and broad, shining brassy, with two deep punctures in front of the middle. Elytra slightly longer than the thorax, slightly shining, rather finely, moderately closely punctate, blackish, with two or three minute and obscure flavescent dots on their apical portion, with a few flavescent hairs across the middle, most distinct at the sides. Hind body beautifully iridescent, rather closely punctate, with some flavescent hairs at the base of each segment, arranged so as to form two indistinct spots, terminal styles lurid red; tarsi obscure red.

This species is one of a group found in New Zealand. Its nearest ally is *Quedius wakefieldi* Fauv. in litt., but the two differ in almost all their details.

Bealey. Helms, one female.

PHANOPHILUS (nov. gen. Pæderinorum).

Labrum magnum, medio emarginatum; caput rotundatum, collo sat lato; antennæ graciles haud fractæ. Tarsi anteriores late dilatati; tibiæ anteriores intus subsimplices: tarsi posteriores sat graciles articulo basale quam secundo vix longiore. Generis typus *Lithocharis comptus* Broun.

This genus, though without any very salient characters, is evidently abundantly distinct from any known, and should be placed near *Lathrobium* and *Domene*, and this also is M. Fauvel's opinion. It has not the facies of any of these forms, and is, I think, more like *Pæderus* in this respect. From *Lithocharis* it is abundantly distinct by the form of the labrum, by the strongly dilated front tarsi, and the proportions of the joints of the hind feet. From *Lathrobium* and *Domene* it is distinguished by the almost simple front tibiæ, which are nearly straight externally, and have their lower portion only very slightly flattened or shaved off, as well as by the suborbicular thorax. The mandibles are elongate, strongly bidentate towards the base. The head is large, suborbicular, and the slender antennæ are very widely separated; the clypeus is apparent as a strip of white membrane behind the labrum. The basal ventral segment is strongly carinate at the base. I am acquainted with only a single female; it has the last ventral plate angular in the middle like many *Lathrobia*.

COPROSTYGNUS (nov. gen. Oxytelinorum).

Generis *Coprophili* facie et affinitate. Clypeus sat magnus, sutura profunda, arcuata delimitatus; mentum in medio obtuse acuminatum fere rotundatum; palpi breves, maxillarium articulo penultimo brevissimo, quam ultimo triplo brevior. Tarsi quinque articulati, articulis quatuor basalibus per brevibus; tibiæ anteriores extus versus apicem parce breviterque spinulosæ.

The insect for which this genus is established is closely allied to the European *Coprophilus*, but the numerous differences in some points of detail, which are mentioned above, render it a proper course, I think, to separate it. The species has the slender build of the neighbouring genus *Acrognathus*.

*Coprostygnus sculptipennis*, n. sp.—Elongatus, niger, nitidus, antennis pedibusque rufo-piceis; prothorace fortiter punctato, inæquali; elytris lineis elevatis exaratis. Long 6–6½ m.m. (Plate XII, fig. 14.)

Antennæ stout, very loosely articulated, penultimate joint scarcely so long as

broad. Head narrower than the thorax, with prominent eyes, coarsely and closely sculptured, the clypeus with only a few punctures. Thorax much narrower than the elytra, nearly as long as broad; front and hind margins straight; sides curved, slightly sinuate behind; hind angles rectangular, sharply marked; the surface is closely, deeply, and coarsely punctate, has a large impression on each side, two indistinct impressions at the base, and another on the middle. The elytra are much longer than the thorax, each traversed by about eight raised lines, those near the suture coarser than those external; the intervals between the lines sculptured in a rather indefinite, elongate manner. The male has the fourth and fifth joints of the antennæ dilated; an elevated tubercle at the sutural and apical angles of the wing-cases, a depression on each of the three basal dorsal segments, and a sharply elevated sub-hamate carina on the penultimate segment.

Greymouth. Helms, one pair.

#### OMALIUM.

*Omaliium sagoloide*, n. sp.—Haud latum, anterius angustior, rufo-testaceum, capite thoraceque fusciscentibus, minus breviter pubescens; capite thoraceque inæqualibus, profundius impressis, hoc minus fortiter transverso, posterius fortiter constricto; elytris minus punctatis, basi inæquale. Long.  $2\frac{1}{2}$  m.m. (Plate XII, fig. 15.)

Antennæ longer than head and thorax, strongly pubescent; joints 6–10 evidently broader than those preceding; penultimate slightly transverse. Head with the two frontal impressions deep and large. Thorax rather coarsely punctured, with two very deep impressions on the middle, and another at each side. Elytra about twice as long as the thorax, rather sparingly punctate, the punctures towards the apex obsolete, shining, strongly pubescent, with a transverse depression near the base, giving rise to the appearance of a slight callosity on each side of the scutellum.

This species is remarkable from its great resemblance to the more elongate of the species of the genus *Sagola*. It is allied to *O. hirtellum* Fauv. in litt., but is readily distinguished by the more elongate form, less transverse thorax, and more uneven surface of the head and thorax.

Picton. Helms.

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#### Fam. PSELAPHIDÆ.

##### DALMISUS (nov. gen.).

Antennæ rectæ, undecimarticulatæ. Palpi maxillares breves, simplices, articulo ultimo ovale. Caput superne subproductum, supra antennis fortiter tuberculato-elevatum, his sat approximatis. Tarsi unguiculo unico. Abdomen e segmentis ventralibus sex, dorsalibus quinque, compositum.

The insect for which I establish this genus is not all closely allied to any other European or exotic form known to me. It has the aspect of a *Batrisus*, but in Reitter's arrangement of the family would apparently be placed in the *Pselaphini*. The first ventral segment behind the coxæ is quite short, and is strongly carinate-elevate between the coxæ which are approximate, the following segments are short, the second being, however, as long as the third and fourth together, the fifth short and transverse, the sixth in the male (from which this description is taken) is large at the side, but in the middle is cut away nearly to the base. The first visible dorsal segment is rather short, but longer than the second; this, as well as the third and fourth, are subequal, the apex much deflexed, the two or three basal segments obscurely margined at the sides, with greater inequality in the lengths of the segments. The palpi are similar to those of *Batrisus*. The front coxæ are exerted, and rather elongate. The tarsi consisting apparently of two elongate joints, but there is also really a minute basal joint; the single claw is elongate.

The genus in the New Zealand list should be placed before *Dalma*, from which it is distinguished by the shorter hind body, and the produced front of the head.

In the *Verh. Ver. Brunn*, xx. p. 197, Reitter has briefly indicated a New Zealand genus which he calls *Adalmus* (hitherto without described species), but which, from the brief characters given, evidently cannot be the present genus.

*Dalmisus batrisodes*, n. s.p.—*Subgracilis*, rufus, tenuiter pubescens, antennis pedibusque gracilibus; prothorace elongato, tricanaliculato, canaliculis ad basin foveolatis, impressione basale transverso profundo. Elytris elongatis, basi intra humeros profunde impresso. Long.  $2\frac{1}{4}$  m.m.

Antennæ with the basal joint thicker than those following, and about as long as the second, third, and fourth together; the three terminal joints slender, though stouter than the others. Head with small eyes, which are prominent only in front; in front of them a good deal produced, the genæ delicately, but elongately setose. Thorax as long as broad, much narrowed in front and behind. Elytra without punctuation, but with a sutural stria, and a large deep intra-humeral impression. The male has a very small spine on the intermediate trochanters.

This species was sent me from Greymouth by Mr. Helms some time ago. Though it is probably known to Herr Reitter, as Mr. Helms has been in the habit of transmitting his *Pselaphidæ* to him, it does not appear to have been yet described.



## Fam. PARNIDÆ.

## PROTOPARNUS.

*Protoparnus longulus*, n. sp.—Oblongo-ovalis, fusco-niger, nitidus, longius pilosus, antennis pedibusque rufis; sat crebre et sat fortiter punctatus, elytris obsolete striatis, striis internis omnino deletis, externis ad humeros profunde impressis. Long.  $4\frac{1}{4}$  m.m.

This is closely allied to *P. vestitus*, but is readily distinguished by the more elongate form, and the elongate pilosity of the surface; the punctuation, too, is coarser and more distant.

Picton. Helms, one example.

Mr. Helms informs me that these insects, as I suspected, are not aquatic in their habits, but occur under logs in damp places. *P. vestitus* apparently is not very rare about Greymouth, as Mr. Helms has recently been so kind as to send me several other examples, which agree exactly with the type.

## Fam. SILPHIDÆ.

## CATOPSOLIUS (nov. gen.).

Corpus subdepressum, nitidum absque pubescentia. Pedes graciles, tarsi 5-articulati. Antennæ graciles, articulo octavo quam contiguis angustiore, clava gracile, triarticulata. Palpi maxillares articulo ultimo acuminato, precedente paulo latiore, multo longiore. Prosternum ante coxas sat magnum.

Although very different in appearance therefrom this genus is undoubtedly allied to *Catops*, but the head is not capable of the great inflexion it possesses in that genus, and as a correlative fact the front of the prosternum is comparatively large. The proportions of the joints of the maxillary palpi are very different from those of *Catops*. From *Camarius* the genus is distinguished by the different maxillary palpi, and by the fact that the epipleuræ—very broad at the base, continue to the end of the wing cases, becoming gradually narrower behind. The legs are remarkably slender, the tibiæ quite straight, extremely feebly spinulose externally; the basal joints on the middle and hind feet are much longer than the seconds. The front coxæ are rather small, not very prominent, and have but little extension in the transverse direction, their cavities closed behind and similar to those of *Catops*. The middle coxæ are separated only by an excessively narrow process, and the mesosternum is not in the least carinate. The hind coxæ are very long in the transverse, very short in the longitudinal directions.

*Catopsolius lævicollis*, n. sp.—Ovalis, latus, subdepressus, niger, nitidus, antennis pedibusque rufis; prothorace amplo, lævissimo; elytris fortiter regulariterque seriatim punctatis. Long. 4 m.m. (Plate XII., fig. 16.)

Antennæ longer than head and thorax; very slender; joints 3–6 very slender and elongate, almost similar in length and breadth; seventh joint perceptibly broader, and a little shorter, much longer than broad, eighth joint longer than broad, about as broad as the sixth; ninth, tenth, and terminal joints each longer than broad. Head smooth, shining, and impunctate. Thorax strongly transverse, a good deal narrowed in front, the front angles obtuse, the hind slightly acute owing to a slight sinuation of the base on each side. Scutellum rather large, triangular, impunctate. Elytra, each with nine very regular series of coarse punctures, the external of which touches the lateral margin. Legs very slender.

Greymouth. Helms, No. 158. I have seen only two examples, and regret that I do not know the male.

### Fam. COLYDIIDÆ.

#### HETERARGUS (nov. gen.)

Oculi minuti; antennarum clava abrupte biarticulata; canalicula subocularis lata et profunda; pedes omnes sat distantes.

The little insect for which this new generic name is proposed is more nearly allied to *Coxelus* than to any other New Zealand form. The eyes, however, are quite rudimentary, and the minute ciliated prominence existing behind the eye in *Coxelus* is quite absent; the mentum is larger, and the front and middle coxæ are slightly more distant; the last joint of the maxillary palpus is more acuminate, and the basal joint of the antenna is not concealed, as it is in *Coxelus*. The metasternum, ventral segments, and legs are but little different from those of *Coxelus*. The only species yet discovered has the prosternum between the front coxæ traversed by two deep depressions.

*Heterargus rudis*, n. sp.—Fuscus, antennis pedibusque rufis; fere nudus prothorace fortiter transverso, inæquali; elytris obsolete tuberculatis. Long.  $2\frac{3}{4}$  m.m. (Plate XII., fig. 17.)

Antennæ small, with short two-jointed club. Head with clypeus distinctly marked off and scarcely sculptured, with a small elevation over the insertion of each antenna. Thorax broad, the front angles but little prominent, the surface uneven, but very indefinitely sculptured, the lateral margins thick, obsolete tuberculate seriate. Elytra rather short, with an obscure sculpture arranged longitudinally, consisting of series of very minute elevations, and with two or three interrupted series of larger, but still small, elevations.

This species is very difficult to describe, owing to the undecided character of the sculpture; but the minute eyes, and the two peculiar depressions between the front coxæ will render its recognition easy.

Greymouth. Helms.

#### BITOMA.

*Bitoma sellata*, n. sp.—*Angusta, oblonga, subdepressa, fusco-rufa, supra fusco-ochracea, elytris plaga commune post scutellum nigro-fusca, antennis pedibusque testaceis; prothorace lateribus profunde excisis, lobis angustis longe separatis; elytris tuberculis parum elevatis subseriatim dispositis. Long.  $3\frac{1}{4}$  m.m. (Plate XII., fig. 20.)*

Antennæ red, club not darker; third joint much more slender than second, and a little shorter than it, but little longer than broad; 4–9 small, similar to one another; the two terminal joints forming an abrupt, rather broad club. Thorax with uneven surface, and explanate sides, the explanate portion divided by very large excisions into three elongate slender lobes, one of which projects much forwards and forms the produced very acute front angles, the two others project outwards, and the hind angles form a fourth but very minute prominence. Elytra not at all explanate at sides, bearing numerous blunt slight tubercles. The upper surface is obscurely squamulose and setulose, and there are some minute dark marks, in addition to the common dark mark placed some distance behind the scutellum and by which the species may be readily recognized.

This little insect is very strange in *Bitoma* owing to the deeply rugged sides of the thorax, which are like those of *Tarphiomimus* and some of the small *Ulonoti*; but the two-jointed club of the antenna makes its position at present to be more correct in *Bitoma*, to which genus it is connected, as regards the sides of the thorax, by the two species next described. Broun has proposed to separate, under the name of *Ablabus*, those forms allied to *Ulonotus* by the explanate and indented sides of the thorax, but having, like *Bitoma*, only a two-jointed club: as no character is mentioned by which his genus can be separated from *Bitoma* other than the shape of the thorax, and as this in the New Zealand species is too variable to serve when used alone as a generic character, I do not adopt the genus at present, though I do not think the species here described as *Bitoma*, or indeed any of the New Zealand species, will ultimately prove congeneric with the European type of the genus.

Greymouth. Helms, No. 289.

*Bitoma auriculata*, n. sp.—*Oblonga, angustula, ferruginea; capite supra antennis fortiter elevato; prothorace lateribus anterieus lobato-prominulis, posterius longius denticulatis; elytris tuberculis fasciculatis, parum elevatis, seriatim dispositis. Long.  $3\frac{3}{4}$  m.m.*

This species is very like a small *Endophloeus*; but, though there is a very slight enlargement of the ninth joint of the antennæ and the club itself is rather slender, yet it is very evidently only two-jointed. The head is remarkably strongly elevated at each side over the antennal cavity, and the first joint of the antenna is concealed; the sides of the submentum are quite prominent, and there is thus formed a well-marked antennal fovea adjacent to the eye; the legs are short, and there is a very slight incrassation of, and prolongation of, the under-surface of the basal joint of the tarsus. The form of the thorax is remarkable, the front half having the sides dilated as an explanate projection, as in *Tarphiomimus*, while the posterior half is not explanate, but merely armed with some elongate denticles or serrations; the surfaces of the head and thorax are rather closely granulate, and the latter is a little uneven; the elytra have regular series of punctures, which, however, only look like punctures when viewed from one direction, and each also has three series of three or four small tubercles, which are a little hispid at the summit; near the scutellum at the base is a longer elevation, and the lateral margins are minutely serrate and hispid. The tibiæ are destitute of any but very fine clothing.

New Zealand; a single example from Murray's collection.

*Bitoma serraticula*, n. sp.—Oblonga, angustula, fusco-ferruginea, antennis pedibusque rufis; prothorace lateribus minus explanatis, serrato-dentatis; elytris regulariter seriatim sculpturatis, hispidulis, guttulis minutis ferrugineis, griseo fasciculatis. Long.  $3\frac{1}{2}$  m.m.

This is allied to *B. auriculata*, having a similar structure of the head and legs, though the elevations over the antennæ are not so large; the sides of the thorax, however, are different, owing to the anterior explanation or lobe being here less developed. The thorax is rather strongly transverse, the surface a little uneven, like the head, closely granulose. The elytra have a very regular serial sculpture, consisting of about nine rows of punctures, the punctures being connected by a series of five crenate elevations; they are also regularly hispid, and have each three series of distinct pallid red, minute spots, the fasciculation of these spots being pallid. The legs are short and stout.

New Zealand; a single example from Murray's collection.

*Bitoma mundula*, n. sp.—Oblonga, angustula, subdepressa, fusco-ferruginea, subtiliter squamosa haud hispida, antennis pedibusque rufis; prothorace lateribus anterioribus lobato-explanatis, posterioribus constrictis; elytris tantum ante apicem tuberculatis, apice abruptius declivo. Long. 3 m.m.

Antennæ short, with rather large two-jointed club. Head but little elevated at sides over the antennæ. Thorax with numerous slight depressions, rendering the

surface even, not hispid, and only with very obsolete sculpture, bearing a scanty, extremely fine squamosity, which is more condensed near the sides, so that the surface appears there griseous; the explanate lateral margin is yellowish; it forms a rather large lobe, extending back more than half the length of the thorax, and has a distinct notch before its termination, leaving behind it a slender, rather short, lobe or projection; the hind angle is also slightly prominent. The elytra have no distinct sculpture, but are dull; a little before the apex there are some slight tubercular prominences, the projection being rather backwards than upwards, so that the apex appears rather abruptly declivous, and this part is of rather darker colour, the lateral margins only very obsoletely serrate.

Picton. Helms, one example. Distinguished from *B. auriculata* by the different sides of the thorax and sculpture, and the slighter elevations over the antennæ.

#### ULONOTUS.

*Ulonotus dissimilis*, n. sp.—Oblongus, angustulus, subdepressus, fuscus, supra sordide fusco-rufus, antennis pedibusque rufis, illis clava, his tibiis externe in medio fuscis; prothorace subæquali, lateribus anguste explanatis, integris, elytris brevissime setulosis, tuberculis parum elevatis seriatim dispositis. Long.  $4\frac{1}{2}$ –5 m.m. (Plate XII., fig. 18.)

Third joint of antennæ slender and elongate, nearly twice as long as the third; club large, the ninth and tenth joints darker than the others, the ninth three times as broad as the eighth. Head elongate, without any elevations over the insertion of the antennæ, the surface opaque, densely sculptured; but the sculpture is very obscure, owing to depressed minute squamæ concolorous with the surface. Thorax strongly transverse, the sides nearly straight, but with a very slight emargination in the middle, the anterior angles rather strongly prominent, the posterior nearly rectangular; the surface is covered with granules, the disc very slightly depressed, and, though the surface is slightly uneven, there are no definite elevations. Elytra rather elongate and narrow, with three series of very slightly elevated tubercles, and with very indistinct series of small punctures. The legs are rather slender.

Though this is, apparently, a not uncommon insect in New Zealand, and I some years ago received an example from Captain Broun (with the No. 109 attached), I cannot find any description in his Manual, or the supplements, to agree with it. It was found in numbers at Bealey and Picton by Helms. Reitter sent me an example some time ago from Greymouth, and it was represented in Murray's New Zealand collection. There seems to be little to distinguish it from the type of *Ulonotus*, except the longer head, without elevations over the antennæ.

#### ENARSUS.

*Enarsus cucullatus*, n. sp.—Oblongus, inæqualis, indumento fusco obtectus, prothorace anteriori in medio in lobum longiorem producto, basi utrinque excisione lata sat profunda. Long. 10–12 m.m. (Plate XII., fig. 19.)

This is the largest of the New Zealand Colydiidæ, and though similar to *E. bakewelli* and *E. wakefieldi*, is readily distinguishable by the peculiar thoracic lobe over the head, this being remarkably elongate, not deflexed, and with its sides much raised; these raised sides, moreover, curve round at the front of the lobe and nearly meet one another, being separated only by a slight fissure. The inequalities of the surface are greater than in the other species, and the disc of the elytra flatter, the tubercles behind more prominent, so that the apical portion is more abruptly declivous; the joints of the antennæ, too, are longer than in any of the other species.

Greymouth. Helms, No. 280. Mr. Helms sent me, some time ago, two individuals of this species, but I feared to describe it, thinking it might just possibly prove to be a large variation

*E. bakewelli* or *E. wakefieldi*; he has recently, however, been able to accede to my request for further examples, and I have no doubt it is a quite distinct species.

#### PYCNOMERUS.

As the New Zealand species of the genus *Pycnomerus* are now rather numerous, the following note may facilitate their study:—The genus *Penthelispa* cannot now be maintained, because the New Zealand species supply a transition between those with antennæ of ten joints and those with eleven. The majority of the New Zealand species belong to the ordinary form of the genus, as found in various parts of the world, having large eyes and an elongate metasternum; to this group belong *P. sophoræ*, *simulans*, *minor*, *longulus*, Shp. and *Penthelispa acutangulum*, Reitt. At Greymouth Mr. Helms has met with two very interesting species, nearly or quite blind, and with a short metasternum; these species, *P. sulcatissimus* and *P. latitans*, form a group peculiar to New Zealand, but are connected to the normal type of the genus by an intermediate form, *P. helmsi*. The most abundant and variable of the species is *P. sophoræ*, of which I have seen a large number of examples from each of the two islands. When its variations are understood the other species are very easily determined; *P. sophoræ* varies remarkably in the punctuation, so that the surface is sometimes quite dull, while in other varieties it is nitid, on account of the punctuation being much scantier; it is distinguished by the prominent anterior angles of the thorax, and the shape of the discoidal impression on this part, which assumes the form of a rather deep quadrate depression in front, with a slight prolongation backwards, this posterior part being obscurely divided by a very slight, broad elevation. *P. simulans* greatly resembles *P. sophoræ*, but the discoidal impression extends nearer to the base of the thorax, and is divided by an elongate smooth carina; this species also occurs in both the main islands. *P. longulus* is readily distinguished by its elongate form, less deeply sculptured elytra, with broader, flat interstices; this I have seen only from the southern island. *P. minor* is like a small *P. longulus*, but less elongate, with very indistinct thoracic impression, and antennal club only indistinctly divided. *P. acutangulum*, Reitter I have not been able to recognize, and do not feel sure that

it may not be a variety of *P. sophoræ*. The same remark applies to *P. rufescens*, Broun. The other species described by Broun, *P. simplex*, *ellipticus*, and *basalis*, are, I am pretty sure, unknown to me, and distinct from any I have described.

*Pycnomerus longulus*, n. sp.—*Elongatus*, *angustulus*, *nitidus*, *piceus*, *antennis pedibusque rufis*; interdum *rufescens*; *antennarum clava evidenter divisa*; *prothorace angustulo*, *angulis anterioribus nullo modo prominulis*, *disco vage impresso*; *elytris striatis*, *striis fortiter punctatis*, *interstitiis planis*. Long.  $3\frac{1}{2}$  m.m. (Plate XII., fig. 21.)

Antennæ moderately stout; thorax narrowed behind, slightly longer than broad, closely and coarsely punctate, the disc vaguely depressed, the depression duplicate behind, single in front. Shoulders of elytra free, not at all prominent.

This is closely allied to *P. minor*, though very distinct by reason of the evidently divided club of the antenna. It is also more elongate, and the thoracic impression is a little less obsolete. I do not think the rufescent form is distinct from the dark one.

Greymouth. No. 206; Kumara, and Picton. Helms.

*Pycnomerus helmsi*, n. sp.—*Parum elongatus*, *nitidus*, *piceus*; *capite elongato*, *oculis minoribus*; *prothorace oblongo*, *disco impressione oblonga magna et profunda anguste divisa*; *elytris sulcatis*, *sulcis leviter flexuosis*, *haud punctatis*, *post scutellum transversim depressis*. Long.  $3\frac{1}{2}$  m.m.

Antennæ stout, with club large and only very indistinctly divided, the terminal or pubescent portion small; head densely punctate; thorax scarcely perceptibly narrowed behind the sides, a little contracted near the front angles, which are not prominent, the surface shining but rather closely and coarsely punctate, the disc occupied by a large and deep oblong depression, which is only divided by a slight carina along the middle; elytra with very deep striæ, which are not sculptured, though their edges are a little flexuose, the base is emarginate but the humeral angles are not acute, and immediately behind the scutellum the surface is depressed; metasternum rather short.

This interesting species is an intermediate form between the normal and ordinary New Zealand *Pycnomeri* as represented by *P. sophoræ*, and the blind forms of which *P. sulcatissimus* may be taken as the type. The only examples I have seen are the three sent by Mr. Helms, after whom I have consequently named it.

Greymouth. Helms, No. 291.

*Pycnomerus sulcatissimus*, n. sp.—*Nigerrimus*, *nitidus*, *oculis minutis*, *antennis pedibusque rufis*; *prothorace oblongo*, *fortius punctato*, *disco profunde impresso*, *impressione anguste divisa*; *elytris profunde sulcatis*, *sulcis leviter flexuosis*. Long.  $3\frac{1}{2}$  m.m. (Plate XII., fig. 22.)

This is distinguished amongst the allies by the very deep oblong impression on the middle of the thorax, which is divided only by a narrow carina, extending all along the depression, but less distinct in its anterior part. The eyes are very minute, but still are very easily detected. The eleventh joint of the antenna appears merely as a pubescent apex to the tenth. The thorax has the anterior part of the sides slightly narrowed, the front angles slightly prominent, and the hind angles also distinct. The striation of the elytra is very strong, even the sutural stria being broad and deep, and the striæ not irregular. The metasternum is very short.

I am not sure but that there may still be two species mixed under this name; some of the individuals are only  $2\frac{1}{4}$  m.m. long, and are piceous in colour, the thoracic depression less, and more distinctly separated into two by a broader space; I have not, however, seen enough examples of the two forms to enable me to come to a decision, and prefer treating these smaller specimens merely as a variety.

Greymouth. I have retained for this species the trivial name under which it has been distributed by Herr Reitter.

*Pycnomerus latitans*, n. sp.—*Nigerrimus*, nitidus, oculis minutissimis, antennis pedibusque rufis; prothorace oblongo, fortius punctato, disco leviter biimpresso; elytris profunde sulcatis, sulcis flexuosis. Long.  $3\frac{1}{4}$  m.m.

This is very similar to *P. sulcatissimus*, but is distinguished by some good characters; the lateral margin of the thorax just before the front border becomes thinner, and thus the thorax has an appearance of being suddenly though slightly narrowed in front, and there is no prominence of the front angle; the disc has only two slight impressions, separated by a rather broad space; there is no transverse depression on the wing cases behind the scutellum, whereas in *P. sulcatissimus* the second stria on each elytron is connected by a transverse depression extending behind the scutellum, so that its hind margin is raised; and in *P. latitans* the sculpture of the grooves or striæ is not so effaced as it is in *P. sulcatissimus*, and the eyes are even more minute.

Greymouth. Helms, No. 205.

#### BOTHRIDERES.

*Bothrideres cognatus*, n. sp.—Niger, antennis elytris pedibusque ferrugineis, prothorace subquadrato, fortiter punctato, dorso foveolato, angulis posterioribus argute rectis; elytris apicem versus subcostatis. Long.  $4\frac{1}{4}$  m.m.

Very closely allied to *B. mœstus*, though readily distinguished by the colour of the legs and elytra; the sculpture is almost identical in the two species, except that it is a little more obsolete on the elytra in *B. cognatus*; the latter is, however,



of rather less elongate form, and the thorax is a little shorter, with the hind angles more prominent, and there is no trace of any tubercle on the middle of the prosternum behind.

Bealey, Helms, one example.

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Fam. NITIDULIDÆ.

Ips.

*Ips minimus*, n. sp.—Brunneo-castaneus, nitidulus, supra subænescens, elytris fusciscentibus, basin versus externe vage testaceo-signatis, obsoletissime striatis. Long. 3 m.m.

Antennæ red with large three-jointed club, which is dusky; head very broad, narrowed and prolonged in front of the insertion of the antennæ, labrum comate with front, but the suture still perceptible; thorax large, just as broad as the elytra, and closely applied to them, rather strongly transverse, nearly straight at the sides, which are evenly and finely margined, base not margined, surface, like that of the head, evenly and finely punctate; elytra rather darker in colour than the other parts, with a large mark of irregular form, and more pallid colour near the base externally; they are finely punctulate and indistinctly striate, the sutural and external striæ being, however, quite distinguishable.

This little creature marks the existence of a quite unsuspected element in the New Zealand Coleopterous fauna. Though from its small size it is very different to the other species of the genus known to me, I am scarcely inclined to separate it generically at present; but it presents the following differential characters:—the thorax has no trace of basal margin, the antennal sulci are directed less inwards, and the prosternal process is remarkably elongate and prominent, so that it attains the front of the metasternum, the mesosternum in the middle being quite smooth for its accommodation. The front coxal cavities are broadly open behind.

Kumara, Helms, a single example.

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Fam. CUCUJIDÆ.

BRONTOPRISCUS (nov. gen.).

Antennæ fractæ articulo basali elongato. Elytrorum epipleura lata. Tarsi sat elongati, articulo basale brevissimo (interdum fere omnino nullo).

When I described *Brontes pleuralis* I stated that it might be made the type of a new genus, and the discovery of a second species with the peculiarities still more

exaggerated renders it advisable that this should now be done. The remarkably broad epipleuræ separate the New Zealand genus from the Brontes, both of Europe and Australia, and the tarsi are also much different from the former, though similar to those of the Australian species. The tarsal peculiarities are very interesting, as they differ a little in the two species, and show, as it were, the basal joint in the process of disappearing, so as to allow us to understand the occurrence of four-jointed feet in a few of the genera of the family. The basal joint of the foot is very short, while the second is elongate, twice or three times as long as the third, the fourth being very short, and the fifth very elongate; the articulation between the first and second joints is very oblique, especially on the hind feet, so that the second joint lies on the upper surface of the first, and nearly touches the apex of the tibia; this peculiarity is very distinct in *B. pleuralis*, but in *B. sinuatus* it has gone still farther: not only is the basal joint still more reduced in size, but the connexion between the two is so extremely close that the suture can scarcely be detected, and the tarsi appear to be tetramerous with an elongate basal joint.

*Brontopriscus sinuatus*, n. sp.—Depressus, castaneo-testaceus, opacus, prothorace ubique crebre punctato, lateribus profunde serratis; elytris ovalibus, humeris sinuatis; profunde seriatim punctatis, secundum marginem punctis majoribus impressis. Long. 8 m.m. (Plate XII., fig. 23.)

This is similar to *B. pleuralis*, but has important points of difference, the head and thorax, instead of being shining and nearly impunctate are dull, and covered with a coarse, shallow punctuation. The elytra are less elongate, and have a peculiar sinuation at the shoulders, so that the humeral angles are rectangular instead of obtuse. The male has the base of the front tarsi thicker, of the middle and hind more slender, than the female.

#### CATHARTOCRYPTUS (nov. gen.).

Corpus subdepressum, parum elongatum. Antennæ crassiusculæ clava triarticulata. Thorax transversus lateribus muticis. Coxæ anteriores et intermediae fortiter distantes.

This insect resembles *Cathartus*, and is allied thereto, but has the front and middle coxæ widely separated, the genæ without tooth, and the sides of the thorax without sinuation. The three joints of the antennæ forming the club are all broad; the tarsi are five-jointed, all the joints simple, the three basal on the hind foot all rather small, about equal to one another, fourth rather smaller, fifth as long as the four preceding together. The wide separation of the front coxæ is remarkable, the hind ones being about as approximate as they are in *Cathartus*.

*Cathartocryptus obscurus*, n. sp.—Oblongus, subdepressus, sordide ferrugineus, elytris pedibusque testaceis, prothorace elytrisque plus minusve argute nigro quadrimaculatis; thorace crebre sat subtiliter punctato, elytris subtiliter seriatim punctatis, seriebus apicem versus deletis, interstitiis subtilissime punctulatis. Long.  $2\frac{1}{8}$  m.m. (Plate XII., fig. 24.)

Antennæ short and stout, club large, about as long as the six joints preceding it. Head short, very finely punctulate, nearly dull. Thorax strongly transverse, about twice as broad as long, the surface rather closely and finely punctate, with a more or less distinct black spot on the middle, the sides distinctly narrowed behind, hind angles very minutely prominent. Scutellum transverse. Elytra, with series of fine punctures, which disappear before the apex, with two black spots just before the middle, and a common spot in front of the apex.

Picton, Helms, three examples. *Cathartus advena* and *Silvanus bidentatus* are representatives of other genera near this, and have been found in New Zealand.

#### SAPHOPHAGUS (nov. gen.).

Corpus minutum, depressum, nudum. Antennæ crassiusculæ undecim articulatae, articulis tribus ultimis paulo majoribus. Prosternum magnum; coxæ anteriores globosæ, acetabulis clausis, parum distantes, processu post his sat elongato. Coxæ intermediae minutæ; metasternum longissimum. Coxæ posteriores parum distantes. Abdomen e segmentis ventralibus quinque parum elongatis compositum. Tarsi quinque articulati, articulis quatuor basalibus brevissimis, quinto elongato.

This very minute creature is not at all closely allied to any other form known to me, and from its appearance as well as from the characters I can observe pretty certainly belongs to the Clavicorn series; and the only families in this series its facies suggests that it may possibly be a member of are the Colydiidæ, Cucujidæ, or Cryptophagidæ. I think I have seen with certainty that the tarsi are five-jointed, and the former of these three families may therefore be left out of consideration; while the latter two are so feebly differentiated that, as this genus has no special ally in either, it is a matter of little importance in which it is placed provisionally. As the coxal cavities are nearly always open behind in Cryptophagidæ, whereas in the genus I am at present considering they appear to me closed, I decide on placing it in Cucujidæ. Only two examples of the insect having been found, I do not think it desirable at present to break one of them up, and the structure must therefore be left largely undescribed. But the remarkable elongation of the metasternum, which is considerably longer than all the ventral segments together, will greatly facilitate the recognition of the form. The antennæ are inserted quite close

to the rather prominent eyes, and these are well separated from the front of the thorax. This latter is by no means closely articulated with the after body. The ventral sutures are deep, and the first segment measured along the middle is longer than the second, but the length behind the coxæ is rather less than that of the second.

*Saphophagus minutus*, n. sp.—Oblongus, depressus, angustulus, brunneo-castaneus, nitidulus, fortiter punctatus; prothorace cordato, dorso obsolete bi-impresso. Long.  $1\frac{3}{4}$  m.m. (Plate XII., fig. 25.)

Antennæ with the exposed portion of the basal joint short, second joint short, stouter than the following: joints 3–8 small, subequal, 9, 10, and 11 forming a very loose club, the 10th scarcely transverse. Head small, rather rounded in front, surface nearly even, rather closely punctate. Thorax about as long as broad, truncate in front, with the front angles depressed and rounded, much narrowed behind, not margined at the sides, constricted in front of the base, hind angles rectangular and with a fovea quite at the angle, the surface very shining, rather coarsely punctate, the two impressions on the middle nearly confluent, and varying somewhat in their outline according to the point of sight (as in some *Pycnomeri*). Scutellum very minute. Elytra with series of coarse punctures, and with a short series interposed at the base between the sutural and the next series, so that there is a slight convergence of the second and third series towards the suture behind the supplementary series; they are rather elongate and completely cover the hind body. The legs are short.

Picton, Helms, two examples.

#### PICROTUS (nov. gen.)

Corpus minutum, glabrum, nitidum, capite angusto, exserto, nullo modo deflexo; antennæ undecimarticulatæ, clava abrupta biarticulata; prothorax grandis, ad elytra aretissime applicatus, margine laterali latissimo, angulis posterioribus productis, supra humeros receptis. Coxæ anteriores et intermediae minutæ, globosæ, late distantes; acetabula anteriora aperta; prosternum processu magno posterius producto; coxæ posteriores sat magnæ, transversæ, distantes; abdomen e segmentis quinque ventralibus compositum quorum primo ultimoque ceteris longioribus. Tarsi omnes quinque articulati, articulis quatuor basalibus parvis, subequalibus, simplicibus, ultimo elongato.

This genus is established for a minute and very anomalous beetle; the characters permit its location at present among the *Cucujidæ*, though it has an appearance entirely foreign to that family, suggesting an affinity with *Thoricidæ*, to which, however, it has apparently but little affinity. The front, the

middle, and the hind body are so closely united together that it is not easy to disarticulate them; and the union between the prothorax and the after-body is so perfect that I could only sever them by taking off the abdomen, and then thrusting them apart by a needle placed in the interior; on the other hand, the head is exerted and possesses much mobility. The small eyes are very convex and contiguous with the front of the thorax; the antennæ are inserted a considerable distance in front of the eyes in large cavities, quite exposed in front and only moderately separated. The antennæ themselves are stout, the first joint is globular, rather larger than the second; this is of similar form; joints 3–9 are all short, and the tenth is abruptly broader, strongly transverse, rather larger than the terminal joint; the labrum is exposed, horny, almost transverse-oblong. The mandibles are corneous, thick at base, strongly curved, acuminate, simple. The palpi are all short and very broad, the maxillary four-jointed, basal-joint small and slender, second closely connected with it by an oblique suture, so that the two look like one elbowed joint, it is about as long as broad; third joint strongly transverse; fourth longer and narrower towards the apex, which however is truncate. Maxillary lobes both distinct, the inner slender, the outer robust, both of them pubescent. Ligula exposed, broad, corneous, simple, labial palpi shaped like the maxillary, except that they are only three-jointed; the genæ form a short obtuse angular prominence on each side at the base of the maxilla. The prosternum in front of the coxæ is rather large, and arches over the small coxæ to project backwards as a broad grooved process attaining the metasternum; there is no projection of the side piece behind the coxa, the cavity consequently being quite open behind. The mesosternum is rather large, is occupied in the middle by a deep groove, with raised edges for the support of the prosternal process, and on either side of this with a curved ridge to complete the enclosure of the front coxæ. The metasternum is rather short, and its side pieces are scarcely visible; the hind coxæ are about as widely separated as those of the front and middle legs, they are transversely conical; the legs are small, the tibiæ feeble, unarmed, without apical spurs. The tarsi are terminated by two rather large simple claws; there is very little difference between the front and hind feet. The ventral sutures are all deep, and the basal segment along the middle is nearly as long as the three following together, these being quite short.

*Picrotus thoracicus*, n. sp.—Brevissime ovalis, testaceo-ferrugineus, politus, glaber, capite porrecto transversim post antennas subrugoso; prothorace magno, omnium latissime marginato, angulis posterioribus prolongatis. Long.  $1\frac{1}{3}$  m.m. (Plate XII., fig. 9.)

The peculiar thorax, with its remarkable broad flat margin, will at a glance permit the identification of this species. The elytra are convex, very short in

proportion to the thorax, very completely covering the undersurface: the scutellum is scarcely visible, the base of the thorax being transversely depressed, and a little prolonged, so that only a very minute tip of the scutellum is exposed; there are no wings.

Bealey, Helms, half a dozen examples. Though amongst the most minute of the New Zealand Coleoptera it is certainly one of the most peculiar.

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Fam. MYCETOPHAGIDÆ.

TRIPHYLLUS.

*Triphyllus huttoni*, n. sp.—Ovalis, convexus, minus nitidus, nigricans, antennis (clava excepta) pedibusque testaceis, elytrorum humeris rufis: prothorace densissime fortiter, elytris parcius subfilitis, punctatis. Long.  $2\frac{1}{2}$  m.m.

Antennæ with large stout club, which is dark in colour. Thorax strongly transverse, the sides curvate, a good deal narrowed in front, the surface coarsely and very densely punctate, the front angles extremely deflexed, the sides finely margined. Elytra with very indistinct punctuation, covered like the rest of the surface with a very short depressed pubescence, with a well-marked humeral spot.

This was sent from Otago some years ago by Professor Hutton. It is well distinguished by the absence of any serial punctuation or thoracic fovea.

*Triphyllus zealandicus*, n. sp.—Ovalis, convexus, sat nitidus, niger, antennis (clava excepta) pedibusque testaceis, elytris basi summo rufis, prothorace basi apiceque elytrorumque apice sæpius plus minusve rufescentibus: thorace crebre fortiter punctato, basi utrinque foveola rotundata minuta: elytris parce punctatis, ad basin punctis majoribus seriatis impressis. Long.  $2\frac{1}{4}$  m.m. (Plate XIII., fig. 1.)

Although similar to *T. huttoni* this is of smaller size, and can be very readily identified by the serial punctuation and the thoracic fovea.

Sent in numbers from Otago by Professor Hutton at the same time as *T. huttoni*.

*Triphyllus maculosus*, n. sp.—Ovalis, niger, pubescentia grisea tenuiter maculatus. Long.  $1\frac{7}{8}$  m.m.

Thorax only very indistinctly punctured, without basal fovea, but with a slight depression of the surface at the base near each side. Elytra rather more distinctly punctured than the thorax, sparingly pubescent, but with the pubescence a little concentrated here and there, forming delicate small spots, and at the apex a figure 8 on each; there is a slight depression of the surface behind the scutellum, and the suture towards the extremity is very finely elevated, though a sutural stria can scarcely be said to exist.

Greymouth, Helms, No. 59; Auckland, Lawson.

*Triphyllus confertus*, n. sp.—Oblongo-ovalis, convexus, fusco-ferrugineus, prothorace omnium densissime punctato; elytris sparse punctatis, ad basin punctis seriatis magnis impressis, ferrugineis irregulariter nigro-tinctis, pubescentia flava maculatim vestitis. Long.  $2\frac{1}{4}$  m.m.

Readily distinguished from the other species by the dense punctuation, this on the head and thorax is coarse and rugose, there is no basal fovea on the latter. The yellow pubescence on the elytra appears to be confined to the red marks, these form no definite pattern, but are mixed with the black colour in a very irregular and indefinite manner.

Auckland, Lawson; Picton, Helms. One example from each locality.

*Triphyllus concolor*, n. sp.—Ovalis, testaceo-ferrugineus, antennarum clava fusca, prothorace sat crebre et fortiter punctato, basi utrinque foveola rotundata parvula; elytris parce subtiliter punctatis, ad basin punctis impressis majoribus parum conspicuis. Long.  $1\frac{7}{8}$ - $2\frac{1}{8}$  m.m.

In this species the serial punctures at the base of the elytra, though present, are sub-obsolete. It is remarkable from its resemblance to the European *T. suturalis*, Auct., but it is less convex, much more finely punctate, and the thoracic lateral margin is entire, or rather the few serrations present on it are so minute that they can only be distinguished with a strong magnifier.

Auckland, Lawson; Tairua, Broun; Picton and Greymouth, Helms.

*Triphyllus rubicundus*, n. sp.—Breviter ovalis, convexus, ferrugineus, nitidus; prothorace crebrius fortiter profundeque punctato; basi utrinque foveola parvula; elytris parce subtiliter punctatis, ad basin punctis majoribus impressis seriatis; metasterno fortiter punctato. Long.  $1\frac{1}{2}$  m.m.

Although similar to the smaller examples of *T. concolor* this is readily distinguished by the much less elongate form, and the coarse punctuation of the thorax, and still more emphatically by that of the metasternum.

NOTE.—The genus *Triphyllus* has not yet been noted as occurring in New Zealand; Broun's Handbook gives a description of two species of the neighbouring genus, *Typhæa*, which, however, probably do not belong to *Typhæa*, though I doubt whether they will prove to be *Triphylli*. The New Zealand species of the genus have perfectly the facies of the European *T. suturalis*, Auct., for which Reitter has recently proposed a separate generic name, *Pseudotriphyllus* (Verh. Ver. Brunn, 1879, p. 89). Reitter's paper is, however, merely a systematic analytical table of the European species, and can scarcely be considered a serious attempt to set on a satisfactory basis the genera of these small and neglected insects, and the characters he gives to distinguish *Triphyllus* and *Pseudotriphyllus* can scarcely prove to have generic importance, and I therefore treat the New Zealand species as members of the old genus *Triphyllus*. The neighbouring genus, *Typhæa*, likewise occurs in New Zealand, *T. fumata*, introduced no doubt by commerce, having been sent from Auckland by Lawson.

Auckland, Lawson.

## Fam. LUCANIDÆ.

## LISSTOES.

*Lisstotes rufipes*, n. sp.—Piceo-niger, femoribus rufis, supra hic inde dense fortiterque punctato, punctis squamigeris, areis inter puncta politis. Long. 13 m.m.

This is quite similar to *L. reticulatus*, but is of rather narrower form, and is distinguished by the more definite contrast between the punctate and smooth portions of the upper surface. The thorax is quite smooth between the punctate spaces; these, in addition to those at the side and front, consist of four discoidal, nearly circular depressions, the anterior one on each side being separated from that behind it by only a small space; the punctuation along the anterior margin extends nearly all across; the disposition of the punctured and smooth areas on the wing-cases is the same as in *L. reticulatus*, but the latter are proportionally larger. The sides of the thorax are rather strongly bisinuate; the prosternal process is more dilated and prominent behind the front coxæ than it is in *L. reticulatus*.

Picton, Helms, two examples.

## Fam. SCARABÆIDÆ.

## SAPHOBIUS.

*Saphobius setosus*, n. sp.—Breviter ovalis, latus, fusco-niger, opacus, supra breviter setosus, pedibus piceis, antennis pallide flavis; tibiis anterioribus extus ante apicem angulatis, intus valde curvatis, apice obliquo, dilatato. Long.  $4\frac{1}{2}$  m.m.

This is readily distinguished from the other species by the setose surface, and the peculiar shape of the front tibiæ; the latter of these characters may prove to be found in the male only. The broad head is densely punctate, bidenticulate in front. The thorax is moderately closely punctured, indistinctly depressed along the middle behind. The elytra are only obsoletely striate, but the striæ can be well distinguished, owing to the setæ being absent, or nearly so, along their course.

Greymouth, Helms, two examples in bad preservation.

## PYRONOTA.

*Pyronota lugubris*, n. sp.—Ovalis, supra niger, limbo flavescente, subtus flavescente abdomine plus minusve nigricante, antennarum basi pedibusque flavis. Long. 8 m.m.



This is easily recognized by the black colour of the upper surface, the outer margin of the thorax and elytra being yellow, this colour on the wing-cases becoming broader behind, and sometimes extending a little forwards from the apex along the suture. The front tibiæ of the male are slender, but shaped much as in *P. festiva*, and the basal joint of the front tarsus in this sex is longer and more slender than in the other species; the club of the antennæ is elongate.

Greymouth, Helms.

NOTE.—Mr. Helms has been so kind as to capture and forward to me a considerable number of specimens of this genus, so as to enable me to form an opinion about the species. I also received a good many examples from Professor Hutton, and am thus able to form an opinion as to the variation, at any rate, in the centre of the south island. Three species seem to occur there in plenty. 1. *P. festiva* may be recognized by the fuscous stripe extending from the front of the thorax to the extremity of the elytra; there is also usually a fuscous stripe near the side of the wing-case, but this is occasionally absent; the ground colour is usually pallid metallic green, but this varies a good deal, though the surface is never of a fulgid, coppery, or sanguineous hue. 2. A species recognizable by its green colour, without stripes; the green colour is frequently more or less shot with copper or sanguineous red, and this colour occasionally gains predominance, so that the upper surface may be entirely fulgid red, or the thorax and scutellum may be of this colour, the elytra remaining green. *Melolontha læta*, Fab. appears to be a rare variety of this species, in which the fulgid, coppery colour is confined to the middle of the thorax and to the scutellum. I have seen no other examples of *P. munda* than the three I originally described from the north island, but think it will prove to be a variety of this species, which will take the name of *P. læta*, as Fabricius expressly mentioned its most constant character, viz. the concolorous suture. 3. *P. edwardsi*, Sharp: this is apparently rarer than the two preceding; the colour is usually darker, and the suture is golden or metallic, there being sometimes outside this metallic stripe a contiguous line of dull purple or fuscous colour. All these three occur at Greymouth and Otago. I have seen no fresh examples of *P. sobrina*.

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## Fam. ELATERIDÆ.

### THORAMUS.

*Thoramus wakefieldi*, Shp.—Mr. Helms has met with this insect and *T. obscurus* in some numbers near Picton; both run through similar variations in size and some of the smaller details, and I now feel pretty certain that the suspicion I expressed as to the two being sexes of one species was correct, and propose that they should be united, the trivial name of *wakefieldi* being retained for the species. The variation in size of the individuals is remarkable, some of the females being about 30 m.m. long, while other examples of the same sex scarcely attain 15 m.m. The largest male I have seen is about 21 m.m. long.

*Thoramus parryi*, Cand.—I have made acquaintance with the male of this species by means of an example from the late Andrew Murray's collection. It is

extremely similar to the corresponding sex of *T. feredayi*, but has the meso- and metasterna between the middle coxæ more consolidated, the produced angles of the antennæ less elongate, the sides of the thorax without constriction, and the punctuation of the interstices rather more obsolete. Thus, the four species, *T. wakefieldi*, *T. parryi*, *T. feredayi*, and *T. lævithorax* appear to be valid, though the female of *T. feredayi* is still unknown, and, no doubt, will prove to be difficult to distinguish from the smaller individuals of the corresponding sex of *T. wakefieldi*.

*Thoramus huttoni*, n. sp.—Nigricans, parum nitidus; prothorace elongato, antèrius angustato, crebre subtiliter irregulariter punctato, dorso utrinque area impunctata; elytris subtiliter striatis, interstitiis crebre obsolete punctatis. Long. 19 m.m.

Mas., antennis articulis secundo, tertioque brevissimis, 4-10 angulo apicale interno sat producto.

This species is readily distinguished from others of the genus by the fine prothoracic punctuation; it also possesses an important structural peculiarity; the sides of the mesosternal cavity being very much shorter in front; this character is so striking that it may prove to be of generic importance; the metasternum between the middle coxæ is not very well co-adapted with the mesosternal cavity at the sides, but in the middle the two are consolidated.

Dunedin, Professor Hutton; a single example was sent me from this locality in 1879 by the eminent naturalist in whose honour I have named it.

#### CRYPTOHYPNUS.

*Cryptohypnus thoracicus*, Shp.—Mr. Helms has sent me from Greymouth a series of this species; some of the examples are only half the size of the typical example, and are besides narrower and more parallel, with straighter sides to the thorax; these individuals represent, I have little doubt, the male sex, and they come so near to *C. frontalis* that I feel doubtful whether this latter may not prove to be only a very sparingly punctate variety of *C. thoracicus*: it may, however, be retained as distinct till further evidence can be obtained to settle the point decisively.

*Cryptohypnus pallipes*, n. sp.—Niger, antennis fusco-testaceis, basi, palpis pedibusque pallide flavis; prothorace magno, convexo, nitido, angulis posterioribus elongatis, sat divergentibus, crebrius fere subtiliter punctato, medio canaliculato; elytris subtiliter striatis, interstitiis subtiliter punctulatis. Long. 11 m.m.

This is allied to *C. thoracicus*, but is readily distinguished by the very fine sculpture, and the quite pallid femora and base of the antennæ; the pubescence is short and extremely fine; the thorax is elongate, the length along the middle being just equal to the greatest breadth; the sides are a good deal rounded, and there

is a very distinct constriction in front of the angles; these latter are rather divergent, there is a rather long basal plica on each side in addition to the carina on the angle.

Greymouth, Helms, No. 27; two examples, probably female.

#### CORYMBITES.

*Corymbites irregularis*, n. sp.—Fusco-niger, densius pubescens, opaeus, elytris fuscis, antennis pedibusque testaceis; elytris subobsolete striatis, striis irregulariter subinterruptis. Long. 17 m.m. (Plate XIII, fig. 2.)

Antennæ rather long, reaching back a good deal behind the thorax, third joint elongate, fully as long as the fourth. Eyes of moderate size. Thorax elongate, the sides a little rounded and very slightly contracted before the hind angles, densely and finely punctate, canaliculate. Elytra slightly dilated from the shoulders to beyond the middle, thence much narrowed to the apex, so as to be subacuminate, densely and finely punctulate, and with fine striæ, which are irregularly interrupted so as to give somewhat the appearance of a seriate punctuation. Legs yellow, stout; tarsi elongate, stout.

This species is readily identified by its peculiar form, and the conspicuous pubescence, as well as by the peculiar striation of the wing-cases; it is also peculiar structurally, the saltatorial mucro of the prosternal process being only a little prolonged beyond the lower face of the process, and only distinguished from the latter by this possessing an extremely slight tuberculation at its termination. The borders of the mesosternal cavity are not elevated, and the cavity is but little distant from the metasternum; the femoral portion of the coxal lamina is very slender, and the suture or chink between the labrum and clypeus is deep.

Greymouth, Helms, No. 131.

*Corymbites mundus*, n. sp.—Elongatus, parallelus, rufescens, elytris brunescens, antennis pedibusque testaceis; thorace longiore, crebrius fortiter punctato, lateribus rectis; elytris subtiliter striatis, densius subtiliusque punctulatis et pubescentibus. Long. 14 m.m.

Antennæ reaching back a good deal beyond the thorax, third joint scarcely so long as the fourth, but fully twice as long as the short second joint. Thorax shining of a rather bright reddish hue, evidently longer than broad, the sides straight, rather coarsely and regularly punctate, canaliculate at the base only. Elytra slender, very closely and finely punctate, and very minutely pubescent, finely striate. Trochanteral portion of coxal lamina scarcely distinct from the femoral.

New Zealand, Candèze. This should be placed near *C. myops* and *C. strangulatus*. I am indebted to M. Candèze for the only example I have seen; he obtained it, I believe, from Castlenau's collection.

## ASYMPHUS (nov. gen.).

Frons antcrius rotundato-truncata, haud marginata; clypeus brevis perpendicularis; coxæ posticæ lamina exterius perbreve.

The insect for which I establish this genus has quite the aspect of a *Corymbites*: indeed, I at first thought it would prove to be the female of *C. mundus*; but as the front of the head shows a well-marked abrupt inflection of the clypeus, the species cannot be placed in *Corymbites*. This character brings it nearer to *Thoramus*, but it does not resemble any of the species of that genus, and has the mesosternal cavity destitute of elevated margins, and the coxal lamina is very much smaller than in *Thoramus*. The other characters are apparently the same as in the two genera mentioned. The meso- and metasterna are not at all consolidated at their point of contact between the coxæ; the prosternal process is nearly straight, and shows no division into two parts. The genus is not only allied to *Corymbites* and *Thoramus*, but comes very close to *Cryptohypnus* (as illustrated by *C. thoracicus*), from which it is distinguished chiefly by the shape of the front of the head, the deflexed part of the front not being completely unfolded, and by the greater elongation of the basal joint of the tarsi.

*Asymphus insidiosus*, n. sp.—Rufescens, antennis pedibusque testaceis, elytris pallide brunnis; prothorace subquadrato, crebrius subtiliter punctato, angulis posterioribus parum prolongatis, apicibus quasi-obtusis; elytris striatis, obsolete punctulatis, striis ad apicem profundis, apicibus obtusis. Long. 13 m.m.

Antennæ yellow, reaching back slightly beyond the thorax, basal joint stout, second and third short, subequal, fourth twice as long as second. Thorax straight at the sides, and only very slightly narrowed at the front angles, slightly longer than broad, the hind angles but little prolonged, and slightly twisted or uplifted, their apices viewed laterally appearing rounded, the surface is rather closely and finely punctured, extremely feebly pubescent. Elytra rather distinctly striate, the striæ continued without any obliteration to the apex, this not at all acuminate; the interstitial punctuation is very indistinct, and the pubescence very feeble.

Bealey, Helms, one example. I suppose the individual to be a male, it is remarkable inasmuch as the front leg on the right side is aborted, and only one-third the natural size; but the development of the example does not appear to have been in any way affected by this.

## GERANUS.

*Geranus crassus*, Shp.—Mr. Helms has sent me from Greymouth, Picton and Bealey, specimens of *Elater lineicollis*, White, accompanied in each case by one or more examples of *Geranus crassus* from each locality, so that I now entertain no doubt that the two are the sexes of one species, *G. crassus* being the female.

I have seen no other examples agreeing with the unique types of *G. fulvus* and *G. similis*.

#### PROTELATER.

*Protelater elongatus*, Shp.—I have received also a nice series of this insect from Mr. Helms; amongst them is a well-marked variety, represented by a small number of examples, in which the black marks of the elytra are not present, or rather are indefinite and diffused over nearly the whole surface of the wing-cases, so that these become of a dark-brown colour, with one or two small paler spaces over which the dark colour is not diffused. This variety is not connected with the type by intermediate examples, and may be styled var. d. (Plate XIII., fig. 3); it much resembles *P. huttoni*, but has the wing-cases darker in colour, and with the alternate interstices more elevated behind, the sides of the body beneath infuscate, and the process of the metasternum between the middle coxæ broader.

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#### Fam. DASCILLIDÆ.

##### AMPECTOPUS (nov. gen.).

Corpus parvum, ovale; caput subtus inflexum; antennæ parvæ, undecim articulatae, articulis quatuor basalibus majoribus, laxè articulatis, articulis 5–10 per brevibus. Prosternum nullum; mesosternum grande, coxis intermediis sat distantibus; metasternum sat grande, utrinque anterius ad pedorum intermediorum receptionem profunde impressum. Coxæ posteriores intus magnæ, a sutura recta arcte conjunctis.

The minute insect forming this very distinct genus will be readily recognized by the peculiar antennæ, and the fact that the inflexed and retracted head is in contact with the mesosternum, which as thus exposed bears a remarkable resemblance in form and position to the prosternum, as seen in many coleoptera. I have only a smashed example at my disposal for ascertaining the characters, and am unable to see the parts of the mouth; the small anterior part of the head is prominent, but the mandibles are apparently covered by the labrum, and no palpi are visible; the eyes are of moderate size, and the antennæ are inserted between the eyes; the space between the eye and the base of the mandible forming a deep depression for the reception of the base of the antennæ in repose. The anterior coxæ are transverse, and are attached by the base to the infolded side of the pronotum, but I cannot detect any prosternum either in front of them or between the tips; the femur is rather widely separated from the coxa by the interposed trochanter, and the tibia is dilated externally near the tip, the minute tarsus being protected by being folded backwards and

placed in close apposition with the tibial dilatation. The mesosternum is placed on the same plane as the metasternum, and extends, in an example in the position of contraction, quite visibly on either side in front of the middle coxa: this is rather large and has a visible trochanter. The front outer angle of the metasternum is occupied by a deep depression for the contracted middle leg, and there is a minute appendage to the larger depression for the accommodation of the tarsus. The hind coxæ are transverse, their inner margins are closely interconnected, and their outer portion is deeply impressed, as in the Elateridæ, for the accommodation of the femur; there are five ventral segments, the basal one showing a deep depression on either side for the reception of the contracted tibia. The hind tarsi are small, five-jointed, the four basal joints small, but the first of them rather larger than the following, the fourth is emarginate above for the reception of the small terminal joint. I do not detect any tibial spurs.

There can be no doubt that this little insect should be placed amongst the Dascillidæ, though it does not appear to be allied to any of the known forms of that family; it has, however, considerable affinity with *Chelonarium*; and though this genus is at present located by systematists in the Byrrhidæ, it certainly should be transferred to the Dascillidæ, so that this affinity does not, in my opinion, invalidate the position I propose for *Amplectopus*.

*Amplectopus ovalis*, n. sp.—Ovalis, sat convexus, pallide brunneus, pubescentia depressa, pallida, minus dense vestita, antennis articulis 4-11 nigris; haud dense, fere obsolete punctatus. Long. 2 m.m.

Antennæ with stout first and second joints; third joint also stout, but articulated to the second joint by an extremely slender base; fourth joint larger than those following, which are very minute, the 9th and 10th being however broader than the others, and strongly transverse; terminal joint rather short and broad, nearly as long as the two preceding together. Thorax twice as broad as long, base very closely connected with the elytra. Scutellum triangular, rather large. Elytra almost without sculpture, closely embracing the hind body, their hind margin obliquely subtruncate, a little incrassate, and minutely directed upwards.

This very obscure, but very interesting little beetle, was detected at Greymouth, by Mr. Helms some years ago, but only in a single example, which I sent back to him after examination, and I have now received two other examples from him.

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## Fam. PTINIDÆ:

PERPECTRUS (new name for *Xenocera*, Broun).

Corpus subcylindricum, brevissime pubescens. Antennæ undecim articulatae, articulis 3°, 4°, 6° et 8° minutis, articulis 5°, 7° et tribus ultimis magnis. Prothorax ad latera immarginatus, angulis anterioribus ad coxas sitis, prosternum et mesosternum inter coxas sulcata. Coxæ posteriores quoad longitudinem brevissimæ. Abdomen suturis ventralibus profundis.

The above will be found sufficient characters for the identification of an insect allied to the European genera, *Gastrallus* and *Anobium*, but different by the peculiar enlargement of the fifth and seventh joints of the antennæ; in the European genera just mentioned the three terminal joints are elongate, while all the intermediate joints remain small; these three joints of the club have a similar form in *Perpectrus* to that seen in the European genera. Apart from these characters the genus differs from *Anobium* by the absence of a raised lateral margin on the thorax, and from *Gastrallus* by the number of joints in the antennæ. In form and facies *Perpectrus* is remarkably similar to *Gastrallus*.

This is no doubt the genus Broun intended to establish under the name of *Xenocera*, and I should have been glad to have adopted the name he proposed; but, unfortunately, *Xenocerus* has been in use for a long period for a well-known genus of Coleoptera.

*Perpectrus obscurus*, n. sp.—Subcylindricus, sat elongatus, ferrugineo-brunneus, brevissime pubescens, elytris ad latera vage fusco-plagiatis. Long. 3 m.m. (Plate XIII., fig. 4.)

Covered with a dense, excessively minute pubescence of a pallid fuscous tint, not variegate, though a darker patch appears vaguely defined on each wing-case; this is probably due to some arrangement of the pubescence, as the position and shape of the darker patch varies according to the light and point of view. The antennæ and legs are ferruginous, the former largely developed, the fifth joint being broad as well as long, its width at the apex being, in fact, but little less than its length; the other enlarged joints progressively diminish in width, the terminal joint being very slender and elongate. The prothorax is not quite so long as broad, slightly broader in front than at the base, the surface excessively finely sculptured, without elevations, and with only a slight simulation of conical elevation of the disc. Elytra with quite regular, close striæ, which are distinctly punctate.

Though Broun has described numerous species of *Xenocera*, I cannot make this accord with any of his descriptions.

Bealey, Helms, four examples.

## Fam. TENEBRIONIDÆ.

## PSEUDOPATRUM (nov. gen. Helopinorum).

Antennæ subclavatae articulo 3<sup>o</sup> elongato, ad basin tectæ; oculi transversim margine anteriore curvato. Pseudopipluræ latissimæ acute inflexæ ad ventri marginem grosse profundeque foveolatae. Tarsi graciles, subtus satis pubescentes; tibiæ calcaribus brevibus; coxæ posteriores valde distantes, extus brevissimæ.

This genus is proposed for *Opatrum tuberculicostatum*, White (and a very closely allied species), and is of an anomalous character, so that its true position is very doubtful. The clypeus is emarginate in front, and the much-exposed labrum has its front margin of similar shape; the antennary orbit is rather strongly elevated, and is laterally more prominent than the eye. The last joint of the maxillary palpus is securiform. The mentum is moderately large, and the ligula visible at its extremity. The sides of the thorax are dilated and explanate. The front coxæ are small, globular, moderately distant, the process separating them flat, not prominent. The posterior portion of the mesosternum is more prominent (i.e. on a different plane) than the anterior, but not at all impressed, the middle coxæ are moderately distant, globular, their trochanter rather small. The metasternum is short, and the hind coxæ so widely separated that they are very abbreviated in their transverse dimension. The most remarkable character is the great development of the pseudopipleuræ, which, moreover, are so acutely inflexed that their existence would not be suspected from an inspection of the upper surface, and along the sides of the ventral segments they bear a series of extremely remarkable foveæ. The legs are elongate and slender, the tibiæ quite slender, and with two short but distinct spurs. The tarsi are all slender, the pubescence is on the basal joint divided by an impressed line, the penultimate is a little prolonged beneath the terminal joint.

The most natural position for this genus is, in my opinion, near *Adelium* and *Cilibe*; the form of the eyes and the concealed insertion of the antennæ remove it considerably from Pascoe's *Syrphetodes*, and from the extremely curious genus *Paraphylax* Broun, which is remarkable on account of the neck of the mesothorax being greatly and abruptly below the level of the base of the elytra.

*Pseudopatrum sordidum*, n. sp.—Fuscum, opacum, depressum, prothoracis lateribus explanato-elevatis; elytris per paria striatim minute asperato-punctatis, inter paria hic inde vix tuberculatis, ante apicem tuberculis parum elevatis. Long. 12 m.m.

This is extremely similar to White's *O. tuberculicostatum*, but the remarkable sculpture of that insect is present here in a rather more rudimentary condition, the head is not so broad and the antennæ are not so elongate. The surface is sparsely



studded with depressed flavescent setæ. The anterior angles of the thorax are much produced, and the disc is rendered uneven by some indistinct depressions. The scutellum is remarkably small. Along each wing-case there are three or four irregular stripes formed by minute asperities and punctures placed in pairs; the surface between these is scarcely at all elevated, but here and there is slightly swollen laterally; just before the declivous apex there are three slight tubercles on each clytron, the margin is elevated, and within it are coarse, indefinite depressions.

Picton. Helms; one example.

#### SYRPHETODES.

*Syrphetodes bullatus*, n. sp.—Fuscus, indumento ochraceo-brunneo vestitus; prothorace angulis anterioribus per-productis, margine anteriore medio tuberculato-emarginato; clytris convexis dorso tuberculis quatuor grossis instructis. Long. 9 m.m.

Antennæ blackish; thorax with the anterior angles very long, very acute, widely separated from the eyes; the sides bisinuate; the hind-angles free, rectangular, very sharply defined. Elytra nearly twice as broad at the base as the base of the thorax, just behind the shoulder with a sharp tubercle directed outwards, causing the shoulders to look hamate; the disc provided with four very large elevations, and a pair of smaller acute tubercles between them and the base; the sides but little explanate; the lateral outline undulate near the outer margin, with seven or eight foveæ; tibiæ and tarsi blackish, the former spotted with pallid scales.

Greymouth. Helms, No. 31. I received my example of this remarkable insect from Mr. Helms some years ago; it was the first example of the genus I had seen, and I thought it might be *S. marginatus*, Pascoe. Mr. Helms has, however, found recently a small series of a species at Picton, which agrees much better with Pascoe's figure, and I have no doubt the Greymouth insect is new.

#### PERIATRUM (nov. gen. Helopinorum).

*Pseudopatri* affine. Caput utrinque supra oculos fere planum, his subtransversis vix sinuatis. Antennæ articulo tertio sat elongato.

Although this insect is closely allied to *Pseudopatrum*, the differences in the head and eyes, accompanied by other less important peculiarities, warrant its generic differentiation, though the important points of structure are similar. Neither the clypeus nor the labrum is emarginate. The tibial spurs are extremely obscure, and the tarsi are quite slender. The pseudepipleuræ are extremely broad at the base, and there are well defined and acutely inflexed; they are not marked off from the upper surface by a margin, but by a sort of tuberculation; this becomes coarser behind, so that towards the extremity the pseudepipleuræ have ceased to exist; there is no trace of the extraordinary fossæ that exist on them in *Pseudop-*

patrum. This interesting form may, if an intermediate should be discovered, prove to connect the genus *Syrphetodes* with *Pseudopatrum*; though one or two intermediate links as regards the antennary orbits and eyes are required before we are warranted in considering this affinity as established.

*Periatrum helmsi*, n. sp.—Oblongum, haud depressum, supra planulatum, fuscum, opacum, tenuiter setosum; elytris ad latera et apicem irregulariter tuberculatis; antennis pedibusque testaceis. Long. 7 m.m. (Plate XIII., fig. 5.)

Antennæ with third joint one and a-half times as long as the second, a little thickened from the fifth joint to the extremity, the terminal joint being the largest. The upper surface is obscurely sculptured in the form of very minute asperities, quite irregularly placed; there is an irregular longitudinal depression along the middle of the thorax more free from sculpture than the rest of the surface. The thorax is rather broader than long, moderately emarginate in front, the sides a little narrowed behind, the outline irregular, the hind angles nearly rectangular. The scutellum can scarcely be distinguished. The wing-cases are parallel-sided, and their outline behind becomes quite irregular on account of the nodules; there are also two irregular transverse series of nodules extending across the declivous apex. The very broad basal portion of the pseudopipluræ bears large shallow punctures.

Greymouth. Helms, No. 376.

#### APTHTORA.

*Apthora glabritarsis*, n. sp.—Oblonga, parallela, nigerrima, nitida; prothorace fere impunctato, margine laterale posterius crasso; elytris seriatim subtiliter punctatis. Long. 12 m.m.

Antennæ short, black; each joint from the third to the tenth a little shorter and broader than its predecessor; the penultimate joints strongly transverse; terminal joints large, obtuse; epistome very deeply notched in front, so as to be quite bilobed; thorax about one-third broader than long, its surface with distant, excessively minute punctures. The serial punctures of the elytra are fine, but distinct and very regular; there is a short series on the sutural interval near the scutellum; the interstices impunctate. The tarsi are short and thick, and remarkable on account of their freedom from pubescence or setæ, all that can be detected being a very few placed on the inner face of the tarsus, not on the sole. The only example found is no doubt a male; it has the hind tibiæ denticulate internally below the knee, and the hind margin of the posterior femora and trochanters set with flavescent pubescence.

Picton. Helms. This is an interesting insect on account of the peculiar tarsi: the only other species of the genus has much more slender feet, with a little pubescence beneath.

## ADELIUM.

*Adelium multistriatum*, n. sp.—Oblongum, parallelum, æneum, pedibus piceis, antennis tarsisque rufescentibus, prothorace subquadrato, crebrius fortiter punctato elytris regulariter fortiterque striatis, striis crebrius punctatis, interstitiis angustis. Long. 12 m.m.

This is closely allied to *A. thoracicum*, and has a similar sculpture; the thorax, however, is not conspicuously narrowed behind, and the elytra are remarkable by their deep, regular striation, the striæ being very closely punctured, and the interstices narrow and rather convex. The punctuation of the thorax is similar to that of *A. thoracicum*, but rather more dense, and the sculpture of the vertex is decidedly rugose.

Picton. Helms, one mutilated example.

*Adelium simplex*, n. sp.—Æneo-nigrum, nitidum, pedibus piceis, antennis tarsisque rufis, prothorace subquadrato, lateribus subrectis, postice tantum lenissime angustato, crebre subtiliter punctato, intra latera depressiusculo; elytris multistriatis, sat fortiter punctatis. Long. 9 m.m.

Head closely, moderately finely punctate. Thorax about one-fourth broader than long, rather closely and moderately finely punctured, the sides a little depressed close to the lateral margin, this latter rather broad, the hind angles rectangular. Elytra with series of punctures placed in striæ, the punctures coarse, so that the striation is not very distinct; with one or two spots on the disc where the striæ become disorganized; the interstices almost impunctate. In addition to the punctuation the head and thorax have a few vague larger impressions irregularly placed, and, perhaps, abnormal.

Christchurch. Wakefield, one example. I sent this to Mr. F. Bates some years ago, and he returned it as unknown to him. It should be placed near *A. thoracicum*. *A. æratum* Broun appears from the description to be a closely allied species with differently sculptured elytra.

*Adelium sericatum*, n. sp.—Oblongum, subdepressum, subnitidum, æneum, pedibus piceis, antennis tarsisque rufis; prothorace subquadrato, crebre subtiliter punctato, elytris seriatim punctatis, interstitiis latis sparsim minus subtiliter punctatis. Long. 9–10 m.m.

This is closely allied to *A. simplex*, though readily distinguished by the less shining surface, and by the much finer punctuation of the wing-cases, which are only very feebly striate, the outer series being very obsolete; when compared with *A. simplex*, the striæ are really as numerous (about fifteen) as they are in *A. simplex*, though owing to their greater fineness, and to the broader interstices, and

to the fact that the sides of the elytra are more deflexed, they appear at first to be fewer. There is but little difference in the front tarsi of the two sexes.

Dunedin. Professor Hutton.

*Adelium intermedium*, n. sp.—Oblongum, subdepressum, nigro-æneum, parum nitidum, antennis fuscis, tarsis rufis; prothorace subquadrato, subtiliter marginato, crebre subtiliter punctato; elytris crebre punctatis, obsolete striatis. Long. 8 m.m.

This greatly resembles *A. zealandicum*, but is much less densely punctate, and the fine depressed pubescence of that species is represented in *A. intermedium* by a setosity that is so extremely minute that it can be only detected with a high power, the striæ are quite as obsolete as they are in *A. zealandicum*.

Bealey. Helms; a series of six examples.

*Adelium dunedinis*, n. sp.—Oblongum, convexum, parum nitidum, æneum, antennis pedibusque rufis, femoribus picescentibus; prothorace subquadrato, crebrius subtiliter punctato; elytris subobsolete punctatis, ad basin seriebus minus regularibus punctorum paulo majorum. Long. 8 m.m.

This has most affinity with *A. simulans* Redt., from which, however, it is readily distinguished by the much longer thorax, and by the fact that the serial sculpture of the elytra is confined to their basal half, and is even there more or less irregular. The thorax is fully one-fourth broader than long, the surface very closely and regularly punctate, with a definite punctiform basal fovea on either side, the lateral margin rather fine, the hind angles rectangular, but not sharply marked, the surface convexly transverse, especially in front, so that the front angles are much depressed, and the anterior margin seems comparatively less emarginate than in *A. zealandicum*, and many others.

Dunedin. Another species we owe to Professor Hutton.

#### CERODOLUS (nov. gen. Helopinorum).

Corpus ovale, convexum, absque pubescentia. Pedes graciles, tarsi subtus sat longe pubescentes, articulo penultimo simplice precedente fere angustiore. Prosterni processus latus, inter pedes impressus, apice libero; mesosternum declive.

Antennæ slender, the apical joints scarcely thicker, the third joint a little longer than the fourth; antennary orbits a little elevated; basal joint of antenna partly covered above; terminal joints of palpi securiform; mentum rather broader than long; a little narrowed towards the base; the front oblique on each side, so as to form an angle in the middle; the surface not flat, the prominent antero-medial part being bulged: this apparently accommodates the ligula behind it, for this part is but little exposed; front coxæ rather small, rather widely separated;

the prosternal process impressed between the legs, and behind them not bent up; its extremity capable of close apposition with the vertical front of the posterior part of the mesosternum; metasternum very short; hind coxæ broadly separated; the process between them neither truncate nor acuminate in front, but intermediate in shape between these two forms; ventral segments as in *Adelium*; epipleuræ moderate, gradually narrowed from the base to the apex; legs slender; tibiæ cylindric, smooth; tarsi quite slender, not densely pubescent beneath.

This is another genus of *Tenebrionides*, not closely allied to any other; but will probably be found allied to some of the little-known forms of the family from New Caledonia, such as *Isopus*. In the New Zealand list it will take its place next to *Adelium*.

*Cerodolus chrysomeloides*, n. sp.—Ovalis, niger, supra æneus, antennis pedibusque rufis; capite thoraceque subtiliter punctatis, elytris subopacis, seriatim foveolato-punctatis. Long. 7 m.m. (Plate XIII., fig. 6.)

Antennæ longer than head and thorax; penultimate joint about as long as broad; head scarcely half as broad as the elytra; thorax a little narrowed from the base to the front, with a very slight sinuation of the sides in the front of the hind angles; these about rectangular, but minutely rounded; the lateral margin very fine; the front not emarginate; the base a little sinuate on either side; the surface finely and not densely punctate, with a minute depression on the base on either side of the middle; scutellum transverse; elytra convex, each with eight series of foveiform punctures, somewhere about twelve punctures in each series; those near the suture and base finer, and those at the apex irregular, so that the surface there is quite uneven. Legs, glabrous unicolorous red.

Greymouth. Helms, No. 377. I first received this insect from Herr Reitter; and, as he wished a name proposed for it, I labelled it "*Adelium? variolosum*;" on investigation it proves, however, to be abundantly different from *Adelium*.

#### ARTYSTONA.

*Artystona obscura*, n. sp.—Elongata, convexa, nigricans, antennis pedibusque rufis; capite thoraceque crebre subtiliter punctatis, subopacis; elytris subtiliter striato-punctatis, interstitiis versus apicem vix tuberculato-elevatis. Long. 12 m.m.

The species of this genus are apparently very close to one another in their external characters, but appear to be subject to very little variation. *A. obscura* is about as large as *A. wakefieldi*, but broader and less linear, and is readily distinguished by the more opaque and less punctate head and thorax, and the very slight development of the elytral tuberculation.

Bealey. Helms. *A. wakefieldi* occurs at Christchurch (Wakefield), Dunedin (Hutton), and Picton (Helms).

*Artystona collaris*, n. sp.—Elongata, nigricans, vix nitida antennis tarsisque rufescentibus, capite thoraceque subtiliter minus crebre punctatis, subopacis, hoc ante basin in medio transversim depresso, elytris striato-punctatis, interstitiis apicem versus parum tuberculato-elevatis. Long. 13 m.m.

This is readily distinguished from *A. wakefieldi* by the more obsolete sculpture and the less shining surface. In these respects it is nearer to *A. obscura*; but that is more convex and less elongate, and has no trace of the depression at the base of the thorax.

Dunedin. G. Copland; sent by G. M. Thomson, Esq.

*Artystona obsoleta*, n. sp.—Elongata, nigricans, pedibus piceis antennis tarsisque rufis; capite thoraceque subtiliter minus crebre punctatis, subopacis; elytris obsolete striato-punctatis vix nitidis, vix tuberculato-elevatis. Long. 12 m.m.

This is distinguished from all the other species by the comparatively obsolete sculpture.

Castle Hill. Enys. I owe my example to the kindness of C. M. Wakefield, Esq.

#### MALACODRYA (nov. gen. Helopinorum).

Corpus subdepressum, dense punctatum, antennis pedibusque gracilibus, elongatis; caput parvum, oculis magnis anterieus emarginatis, antennarum basi exposito. Palpi maxillares articulo ultimo subsecuriforme. Coxæ anteriores leviter prominulæ, haud late distantes, acetabulis oclusis; prothorax marginatus. Pedes ubique pubescentes, tarsi linearibus.

This is another anomalous genus of Heteromera; as it has the anterior coxal cavities closed, the prothorax margined, and the claws simple, the only families of Heteromera where it can be located are the Tenebrionides and the Lagriides of Lacordaire. These two families are, however, separated by a character of only minor importance, viz. the greater prominence and contiguity of the front coxæ in the latter, and in this respect the present genus is intermediate between them; as it does not possess sufficiently the characters of the Lagriides it should be placed in the Tenebrionides, as at present understood, though I must admit that it is entirely different in its facies to the typical components of the family. Its structure, however, is not very different from *Artystona*, the most important differences being that in *Malacodrya* the antennæ are quite exposed at their point of insertion, and that all the coxæ are less widely separated, the prosternum between the front coxæ being, moreover, a little less prominent than the tips of the coxæ.

The mandibles of *Malacodrya* are small, and bidentate at the apex; the mentum is small, broader than long, and the ligula quite exposed at its extremity. The

antennæ are inserted quite close to the rather large and prominent eye, which is sinuate in front; the thorax is small, much narrower than the after body; the middle coxæ are but little separated, their trochantins distinct; the metasternum elongate, its episterna moderately broad; the hind coxæ are separated by an angular process, and are strongly transverse; the ventral segments are five in number, and apparently all mobile; the basal three are of similar lengths, the fourth shorter, the fifth small; the epipleuræ are rather narrow, but become a little broader near the hind coxæ, and cease at the margin of the fourth ventral plate; the legs are remarkably elongate and slender, with minute spurs to the tibiæ, and quite simple penultimate joint to the tarsi; the pubescence on the undersurface of the tarsi is but little dissimilar to that of the rest of the surface.

The genus *Chalcodrya*, Redtenbacher should be located close to the present genus; it has the anterior acetabula closed, and it was owing to some error of observation that Redtenbacher stated the anterior coxæ to be contiguous; they are, in point of fact, separated by a well-marked process of the prosternum, and are only moderately prominent, the process being a little immersed between them.

*Malacodrya pictipes*, n. sp. — Testacea, capite abdomineque fuscescentibus, elytris plus minusve viridi-tinctis, corpore superne pedibus antennisque fusco-maculatis; elytris ante apicem tuberculatis, lateribus post medium undulatis. Long. 6–7 m.m. (Plate XIII., fig. 7.)

Antennæ nearly twice as long as head and thorax; second joint but little shorter than the first, all the others elongate; the terminal three a little thicker than the others; the apices of the joints are infusate to a variable extent; thorax much narrower than the elytra, slightly narrowed behind; the hind angles very obtuse; the front ones quite rounded, the surface densely punctate, a little uneven, the sides finely, the base more distinctly margined, the latter a little notched in front of the scutellum; scutellum transversely triangular, punctate; elytra rather closely punctate, with some dark marks on the sutural region; with lateral prominences close to or on the epipleuræ, causing the outline to be undulate, and with a tubercular elevation on each in front of the apex; the tibiæ and tarsi are pallid, but there is a large very definite dark mark on the middle of the former.

Picton, Greymouth. No. 322, Helms. The only example I have seen from Greymouth differs in having the dark marks on the elytra a little elevated and polished, but can scarcely be more than a variety. The natural colour of this elegant insect is, no doubt, delicate and difficult to preserve after death.

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## Fam. CURCULIONIDÆ.

## OTIORHYNCHINI.

The classification of this difficult group of weevils has been much improved during the last few years; it is considered by Leconte and Horn as a separate family of Rhynchophora. It is, however, still very difficult to determine in the case of certain weevils whether they belong to this group or not; it is defined as consisting of such Rhynchophora as possess in the pupal condition and immediately on emerging therefrom, supplementary mandibles affixed to the true mandibles, deciduous and usually leaving a scar on the spot from which they were detached. This scar is very conspicuous in the case of the large majority of the genera of Otiorynchini, but in some it can scarcely be detected, and then it can only be by inference that the genus can be determined as belonging to the family, it being rarely possible to observe the creature immediately on its emerging from the pupal condition; fortunately it frequently happens that one or both of the deciduous mandibles are preserved rather longer than usual, and this is of great assistance in these difficult cases. The New Zealand genus *Rhadinosomus* is one of the uncertain forms; it was placed by Lacordaire in the Otiorynchidæ, but I am not able to find any trace of the mandibular scar, and I have not, therefore, included it in the following table of the New Zealand genera of Otiorynchini, though it is quite probable that observation may show that it ought to be so included. In the table the primary division adopted is that of Lacordaire, according to the presence or absence of an ocular lobe; only one of the New Zealand genera was known to Lacordaire, viz. *Catoptes*, and this he placed in the wrong division. *Catoptes* possesses an ocular lobe, though in only a rudimentary state; indeed Mr. Pascoe has re-characterized the genus, under the name of *Irenimus*, and correctly stated that it possesses an ocular lobe. For the information of New Zealand entomologists I may say that the ocular lobe, when rudimentary, consists merely of a slight projection of the side of the thorax towards the eye; but it is nearly always accompanied by two correlative marks, viz. an emargination of the front of the prosternum, and a change in the form of the eye, the rule being, that in species with an ocular lobe the eye is increased in diameter from above to below, whereas, when there is no ocular lobe, the tendency is for the eye to increase in the transverse diameter that is to extend towards the tip of the rostrum. It is especially necessary to remember this in examining these New Zealand insects, because in them the ocular lobe itself is never extremely developed, and is frequently quite rudimentary. The opening of the corbels or tips of the hind tibiæ is also a very important character in the present classification of the family, and this also in the case of the New Zealand insects is frequently exhibited in only a rudimentary form. White's genus, *Platyomida*,



can scarcely be considered to have been properly described; but as the type exists in the British Museum, and shows it to be the same as *Empæotes*, Pascoe, I have adopted the older name, though with much hesitation and regret. Broun's *Eurynotia pulcherima* is a synonym of *Ancistropterus hochstetteri* Redt. The insect was ascribed quite erroneously by Redtenbacher to *Ancistropterus*; and as I am not able to see any character to separate it from *Empæotes*, I have not included *Eurynotia* as a genus in the table:—

Thorax without ocular lobes,	
Corbels closed,	
Scrobes minute, . . . . .	Nicæana.
Scrobes distinct, rostrum pterygiate, . . . . .	Otiorhynchus.
Corbels cavernous,	
Front tibiæ dilated externally at tip, . . . . .	Cecyropa.
Front tibiæ normal at tip,	
Scrobes short,	
Tip of rostrum not dilated, scrobes	
cavernous, . . . . .	Nonnotus.
Tip of rostrum dilated, hind coxæ	
moderately distant, . . . . .	Protophormus.
Tip of rostrum dilated, hind coxæ	
very widely distant, . . . . .	Epitimetes.
Scrobes elongate, . . . . .	Platyomida.
Thorax provided with ocular lobes,	
Front coxæ separated, . . . . .	Aporolobus.
Front coxæ contiguous,	
Corbels closed,	
Rostrum short, scrobes abbreviate,	
Ocular lobes very feeble, scape short	
and stout, . . . . .	Protolobus.
Ocular lobes definite, scape elongate,	Catoptes and Brachyolus.
Rostrum and scrobes elongate, . . . . .	Heterodiscus.
Corbels cavernous, . . . . .	Inophlæus.

#### CECYROPA, Pascoe.

Rostrum breve, crassum; scrobes brevissimæ, profundæ; antennarum clava breviter ovalis. Tibiæ anteriores apice extus dilatato.

This is a very interesting form, reproducing in several respects the characters of one of our most familiar European weevils formerly assigned to *Cneorhinus*, but now correctly separated as the genus *Philopedon*. It differs, however, in some very important particulars: *Philopedon* is one of the genera where the mandibular scar is present, but only in a rudimentary condition; whereas, in the New

Zealand insect it is apparently quite absent; so that this genus cannot be assigned to the Otorhynchidæ with certainty at present.

The rostrum is very short and thick, and the short scrobes are very deep; they possess, however, at their upper and posterior part, a slight prolongation directed towards the under-surface of the rostrum, not towards the eye; the mentum is rather small, but the maxillæ are not exposed; the scape of the antennæ is elongate, reaching back behind the front margin of the thorax; the eyes are round, but little convex; the thorax is without the slightest trace of ocular lobes, but vibrissæ are present in a rudimentary state; the prosternum is not emarginate in front, and is of moderate length; the front coxæ are rather small, and are contiguous, though their cavities are very nearly separated; middle coxæ a good deal, hind very widely separated; first ventral segment moderate, separated from the second by a strongly arcuated suture, which is obliterated in the middle; tarsi with the third joint bilobed; the first joint of the front feet entirely concealed (viewed in front) by a prolongation of the tibiæ; truncature of hind tibia uniform (= "corbeilles cavernuses," Lacordaire), and surrounded by short thick transparent setæ, which are almost spines; the hind tibia is much dilated at the apex; the claws of the tarsi are small.

The above characters are taken from *Cecyropa albicans*. *C. tychioides*, Pascoe, has the front coxæ just perceptibly more separated, the thorax is provided with well-developed vibrissæ (but, independent of these, is quite destitute of ocular lobes), and the corbels are studded with peculiar squamæ or tubercles. Thus, it exhibits the characters of *C. albicans* in a more perfected degree.

*Cecyropa albicans*, n. sp.—Rufa, fere ubique albido-squamosa, prothorace transversim subgloboso, antice angustiore; elytris subtiliter seriatim punctatis, lateribus post humeros dilatatis. Long. 5 m.m.

Antennæ with the scape covered with white scales, and bearing numerous erect setæ, the third joint rather shorter than the second, the penultimate joints transverse, the club short-ovate; eyes very widely separated; thorax broad, very much rounded at the sides, more narrowed in front than behind, and with a faint constriction behind the front; the base obsoletely margined, without channel or other impressions, uniformly covered with fine white scales, and also with minute distant setæ; elytra clothed like the thorax, but the setæ are even more minute; they bear regular series of fine distant punctures, and they have a lateral dilatation behind the shoulders; a minute scutellum is visible.

Otago. Professor Hutton; one example.

#### PROTOPHORMUS (nov. gen. Otorhynchinorum).

Rostrum breve, crassum, pterygiatum, scrobes brevissimæ. Oculi subconvexi, a prothorace remoti; antennæ elongatæ, scapo oculos superante, prothoracis marginem attingente. Prothorax subcylindricus, lobis ocularibus nullis.

This insect is very similar in facies to the European genus *Phyllobius*, from which it differs by the development of the pterygia, and also by the fact that whereas in *Phyllobius* the tip of the hind tibia is edge-like and bears only one series of setæ, it is here minutely truncate and bears two closely approximated series of ciliæ, so that the "corbeilles cavernueuses" of Lacordaire are here present in a rudimentary\* state, though this structure is so minute that the corbeilles would be said to be open by Lacordaire had he known the insect. There are also other important differences from *Phyllobius*, such as that in *Protophormus* the hind coxæ are widely separated; the mentum is small but fills the buccal cavity; the mandibular scar is present; the front coxæ are small and contiguous, and placed not very far from the front margin of the prosternum, which is not all emarginate; the metasternum is rather short, about as long as the first ventral segment in the middle, the second ventral segment is rather short.

Although the insect does not much resemble *Otiorhynchus* in appearance, yet it appears very closely allied thereto, the only character in fact which distinguishes, so far as I see, the two with certainty being the slightly cavernous corbeilles of *Protophormus*.

*Protophormus gracilis*, n. sp.—*Angustior, fusco griseoque squamosus, plus minusve variegatus, antennis rufis; thorace subcylindrico, medio vix dilatato, longitudine vix latiore.* Long. 5 m.m. (Plate XIII., fig. 9.)

Antennæ elongate, second joint longer and stouter than the third, eighth joint about as long as broad, club large, very elongate oval; rostrum not grooved, the front of the eye placed about half the distance between the front of the thorax and the insertion of the antennæ; thorax much narrower than the elytra, only very slightly broader in the middle, and minutely narrowed in front, the surface densely squamose, not at all uneven or rugose; scutellum small; elytra variable in the colour of their clothing, usually brown, mottled with gray, but sometimes nearly concolorous, there remaining always a more or less distinct pallid mark at each side near the hind femur; they bear striæ of fine punctures and a few fine setæ, and the fifth interstice is a little raised or subnodulose in front of the apex: this is acuminate; the front tibiæ are flexuose inwardly, and mucronate at the apex.

Greymouth. Helms, No. 23. Prof. Hutton found a closely allied species in Otago, and sent me a good series of the sexes in 1879, this is, I have no doubt, the insect described by Broun as *Catoptes cuspidatus*; the female is well distinguished from *P. gracilis* by the produced apices of the elytra, and by the bare tubercle on the thorax; these characters, however, are not present in the male, and this sex can only be distinguished from *P. gracilis* by the thorax being rather less cylindric, and having the sides a little more dilated in the middle.

\* I do not mean by this phrase to imply that this is a primitive condition, on the contrary, I think it probable that the cavernous apex is a lower form than the laminate.

*Protophormus binodulus*, n. sp.—Fusco vel griseo-squamosus, vix variegatus, antennis rufis; thorace subcylindrico antrorsum paululum angustato; elytris minus elongatis ante apicem binodulosis. Long. 6 m.m.

Slightly larger and more robust than *P. gracilis*, and readily distinguished by the existence of a longitudinal nodule or elevation on the third interstice, just at the commencement of the apical declivity. The surface is densely covered with scales varying in colour according to the example, but scarcely at all variegate; the prothorax is elongate, and its surface bears some very obsolete rugæ; the elytra possess regular series of rather large punctures, and, in addition to the nodule on the third interstice, there is a very slight elevation of the fifth interstice, a little more to the front than the other elevation.

Greymouth. Helms, No. 95. Mr. Helms identified the sexes of this species for me by observation of the living insects, the male appears to be rather more slender than the female.

*Protophormus robustus*, n. sp.—Latiior, griseo-squamosus, antennis pedibusque piceis; prothorace rugoso; elytris ante apicem nodulosis, apicibus productis acuminatis (an feminae tantum?) medio ante apicem pallido-squamoso. Long. 8 m.m.

This is distinguished from the other species not only by its larger size, but also by the more uneven surface and broader scutellum. The rostrum is carinate along the middle and minutely foveate between the eyes; the surface of the thorax has numerous coarse rugæ; the broad elytra also have the surface uneven, and bearing series of rather coarse distant punctures, each of which is occupied by a more pallid scale, the interstices present here and there slight longitudinal elevations, the third, fifth, and seventh have each a more distinct elevation at the commencement of the declivity, that nearest the suture being much the larger; behind these two larger elevations the surface extending to the apex is densely clothed with more pallid scales, and on either side there is a large patch of darker—nearly black—scales; the apices are prolonged.

Otago. Professor Hutton; one example. This is probably a female, and from analogy with *P. cuspidatus* it is possible the male may have the apices less produced. The species bears a superficial resemblance to *Catoptes*, from which the form of the head and anterior parts of the thorax readily distinguish it. The tips of the posterior tibiæ are even less cavernous than they are in *P. gracilis*; so that, had it not been for my previous knowledge of that insect, I should have considered the corbels as open in the present insect, yet a really careful inspection shows that they are truly cavernous in a rudimentary manner. The sculpture and form of the insect are very similar to those of *Empæotes censorius*, Pascoe; but that has a less pterygiate rostrum, with definite scrobes directed towards the front of the eye.

#### NONNOTUS (nov. gen. Otiornychinorum).

Rostrum breve, crassiusculum, subcylindricum, scrobes brevissimæ. Oculi magni haud convexi superne minus distantes.

This is closely allied to *Protophormus*, from which it differs in the form of the

head and rostrum, this latter being destitute of pterygia, while the head is much narrowed, and the eyes placed more on its upper face. The truncature of the posterior tibiæ is much the same as in *Protophormus*, though the truncate surface is scarcely so minute. It should be remarked that, though the rostrum is not expanded at the apex, yet the scrobes are quite visible from the front; they are very deep at the insertion of the antennæ, but very short and very indefinite behind. The structure of the antennæ, and indeed all the other characters, seem nearly the same as in *Protophormus*.

*Nonnotus griseolus*, n. sp.—*Angustulus*, squamulis pallide griseis vestitus, antennis tarsisque rufis, tibiis rufo-obscuris; prothorace subtransverso lateribus rotundatis. Long. 5 m.m. (Plate XIII., fig. 8.)

Antennæ rather long, second joint longer than the third, eighth hardly so long as broad, club large, elongate oval; rostrum punctate, the squamosity not so dense as on the elytra; eyes large, but not at all convex; thorax evidently broader than long, even, without impressions or rugosities, the sides a good deal rounded, more narrowed in front than behind, the surface rather closely punctate, but the punctuation almost concealed by the pallid squamosity; scutellum rather small; elytra rather densely and uniformly covered with very pallid scales, and bearing minute pallid hairs, very finely striate.

Otago. Professor Hutton; a single example.

#### EPITIMETES, Pascoe.

Corpus robustum, dense squamosum, setosum. Rostrum breve crassum; scrobes perbreves. Antennæ elongatæ scapo gracile, prothoracis marginem attingente. Prothorax latiusculus, lobis ocularibus nullis. Corbellis posterioribus leviter cavernosis.

There can be no doubt as to the position of this genus, which should be between *Protophormus* and *Platyomida*: it is very different from the former genus in appearance, and differs in numerous details, the eyes are more pointed below, the rostrum thicker and more quadrate, and the hind coxæ extremely widely separated; the scrobes are very short and their posterior part excessively vague, as in *Protophormus*, but nevertheless taking a different direction, being, in fact, directed towards the lower part of the front of the eye, not to the under-surface of the head; the posterior corbels are very evidently, though not broadly, cavernous; the short rostrum and obsolete scrobes readily distinguish the genus from *Platyomida*; there is no trace of ocular lobes, and the short prosternum is but little emarginate in front; the metasternum is excessively short, and the intercoxal process of the first ventral segment extremely broad, quite truncate in front; the second ventral segment much shorter than the first; the facies is quite similar to that of *Brachyolus*, which, however, has a well-marked ocular lobe.

*Epitimetes wakefieldi*, n. sp.—Niger, indumento sordido fusco-squamoso; prothorace latiusculo antennis angustato ante medium foveolato; elytris apicem versus obsolete tuberculatis. Long. 8 m.m.

The whole surface is covered by a mixture of exudation and scales, giving it an uniform dark colour, the setæ projecting through this clothing; the second and third joints of the antennæ are slender and elongate, subequal in length; the very short thick rostrum is a little depressed between the eyes and carinate along the middle; the thorax is broad, not narrowed at the base, but rather abruptly narrowed in front: it is rugose, and has a vague depression along the middle, which near the front becomes conspicuous, it is also a little depressed on either side; the elytra are broader than the thorax, and have the third, fifth, and seventh interstices a little raised; this elevation terminates as a slight tubercle on the third and fifth interstices in front of the declivous apex; and, on the fifth, there is another small tubercle behind the front one; the seventh interstice has no tubercle behind, but, at the shoulder becomes so strongly raised as to form a lateral margin: the serial punctuation is obscured by the clothing.

Christchurch. C. M. Wakefield, Esq. Though very different in form from *E. lutosus*, Pascoe, this species seems quite to agree with it structurally.

#### PLATYOMIDA, White.

*Platyomida coronata*, n. sp.—Convexa, nigra, dense griseo-squamosa, interdum subolivaceo-tincta; prothorace rugoso; elytris tuberculis prominulis sex ornatis. Long. 6–8 m.m. (Plate XIII., fig. 12.)

Antennæ elongate and slender, scape squamose and setose, second and third joints elongate, the former rather the longer, club very elongate oval, rostrum carinate on middle, eyes sub-convex; thorax much narrower than the elytra, surface rugose, densely squamose; elytra convex, obliquely narrowed at the shoulders to the base of the thorax, the surface a little uneven, in addition to the circle of tubercles there being a slight elevation of the third interstice at the base, and also one or two other less distinct elevations, the third interstice bears on the middle a rather small tubercle, and behind it a much more elongate one, while the fifth interstice bears another tubercle, the surface is densely squamose, and also bears coarse setæ, which are more concentrated on the tubercles; the rows of punctures are rather coarse, but are rendered indistinct by the squamosity; the anterior tibiæ are slender and flexuose.

Greymouth. Helms, No. 31. This has been sent in considerable number; and, according to a pair sent separately by Mr. Helms as representing the sexes the female has the elytra more inflated, and the tubercles rather less prominent; but this may not be constant, as I find the two characters do not always go together.

The scrobe in this species is not so elongate as in the typical species of the genus; but I do not think this sufficient for generic differentiation.

*Platyomida simulatrix*, n. sp.—Minor, griseo-squamosa, haud variegata; prothorace cylindrico, rugoso; elytris interstitio tertio longitudinaliter ante declivitatem magis elevato. Long. 6 m.m.

This is extremely similar to *Protophormus binodulus*, but the surface is more uneven, though the apical nodules are less developed; the scape of the antenna is rather short, the apical portion much incrassate, the short broad rostrum has on the middle two very short feeble grooves, separated by a slight carina; the thorax is remarkably cylindric, and its surface coarsely rugose; the elytra bear regular series of rather coarse punctures, and the third interstice has an elongate, slight elevation at the commencement of the apical declivity; only a very slight elevation of the fifth interstice can be detected, and this is elongate, not in the least nodular.

Greymouth. Helms, No. 96; a single example. Though so similar to *Protophormus binodulus*, the species will be readily separated therefrom by the deep elongate scrobe attaining very nearly the front margin of the eye. It is very closely allied to *P. (Empæotes) censoria*, Pascoe, but scarcely attains the size of the smallest examples of that species, and is readily distinguished by the absence of the nodules seen in *P. censoria*.

#### APOROLOBUS (nov. gen. Otiorrhynchinorum).

Corpus parvum, indumento obscuratum, setosum; antennæ scapo crasso; rostrum breve, scrobes profundæ, foveiformes; coxæ anteriores sat distantes; loba ocularia obsoleta. (Plate XIII., fig. 10, *A. irritus*.)

This genus cannot be associated with *Trachyphlœus* on account of the separated anterior coxæ; and, moreover, though the ocular lobes are excessively rudimentary, yet it is clear the genus is correctly placed in the group characterised by the possession of the lobes in question. In *Aporolobus* the prosternum is markedly emarginate, the eyes are placed near the thoracic margin, and extend slightly downwards rather than forwards; these characters being usually correlative with the ocular lobes, and the lobes themselves being faintly indicated, there can be, I think, no real doubt as to the position of the genus. The separation of the front coxæ is exhibited by only a few genera of Otiorrhynchidæ, though it is here conspicuous. The coxæ are small and very little prominent; the metasternum is excessively short, the second ventral segment is of moderate length, and the posterior corbels are not cavernous; the mandibular scar is quite perceptible; the tarsi are quite of the *Trachyphlœus* type, very short, with very broad third joint, the lobes of which, however, are short. The only species known to me is *Trachyphlœus irritus*, Pascoe.

The presence or absence of ocular lobes is at present considered of primary importance in the classification of the Otiorrhynchidæ, but if there should prove to be many genera in which it is as vague a character as it here is, it will be impossible to treat it as a character of primary importance.

## PROTOLOBUS (nov. gen. Otiorrhynchinorum).

Corpus parvum, indumento obscuratum, setosum; antennæ scapo crasso; rostrum breve crassum, scrobes modice elongatæ parum distinctæ; coxæ anteriores contiguæ; loba ocularia parum distincta.

This is undoubtedly closely allied to the preceding genus, though the front coxæ are in the normal condition as to contiguity; the scrobes, too, are differently constructed, instead of being broad and deep cavities tending directly upwards towards the front and anterior part of the eye, they are here finer, and their terminal portion, though not very distinct, is directed towards the undersurface of the head; the metasternum is short, but not so extremely short as it is in *Aporolobus*; the other characters seem to be much the same as in that genus. I refer two species to the genus. Of the three individuals I have seen, two show the minute palpi visible at the front of the mentum; I am not sure whether this may not be abnormal.

*Protolobus obscurus*, n. sp.—Longulus, indumento grisescente vestitus, parcius albido-setosus; prothorace elongato, subcylindrico. Long. 3 m.m.

Antennæ with the third joint only half as long as the second, club elongate oval, acuminate; eyes widely separated, and very little visible from the front; thorax elongate, subcylindric being nearly straight at the sides; elytra rather narrow and elongate. No sculpture can be seen owing to the dense exudation with which the surface is covered; but the setæ project through this, and on the elytra form regular series. There is a slight appearance of nodulosity on the commencement of the declivity of the wing-cases.

Otago. Professor Hutton. The second species of the genus is from the same source, and may perhaps be *Trachyphloeus parvulus*, Pasc.

CATOPTES, Schönherr. (*Irenimus*, Pascoe).

Although placed by Lacordaire in his division without ocular lobes, this genus really belongs to the other division. It is true the ocular lobes are but slightly defined, still they are clearly present, and the correlative position and form of the eyes leave no doubt as to the true place of *Catoptes*: when Lacordaire's error is corrected and his description amended it will be seen that there is nothing to distinguish Pascoe's genus *Irenimus* from *Catoptes*. *Brachyolus punctipennis* assigned by me provisionally to that genus approaches closely in the systematic characters to *Catoptes*, but has the ocular lobes well marked, and the emargination of the prosternum abrupt; also the buccal cavity is more open at the base.

*Catoptes brevicornis*, n. sp.—Dense pallide griseo-squamosus, fusco-varie-



gatus; prothorace minus elongato lateribus æqualiter rotundatis; elytris apicem versus fere enodulosis, apice oblique albido. Long.  $4\frac{1}{2}$  m.m.

Rostrum densely squamose, not visibly carinate. Thorax rather short and small; strongly transverse; much narrower than the elytra; the sides rounded, the greatest width near the middle; the front margin a little constricted, and rather narrower than the base; the surface densely squamose, a little variegate, there being a vague abbreviated lateral white vitta, and within this at the base a dark fuscous spot. Elytra also variegate, the sutural region being in greater part fuscous, and the lateral pallid grey, nearly white; the third interstice has a very minute obsolete nodosity in front of the declivity, but there is none at all on the fifth; the setosity is well marked. The antennæ are dark-red, the third joint shorter than the second; the eighth not so long as broad. Allied to *C. obliquesignatus*, but much smaller, with shorter thorax and antennæ.

Otago, Professor Hutton; Auckland, Lawson.

*C. obliquesignatus*, Schon., is evidently a variable species; it has an elongate thorax and antennæ, the greatest width of the former in front of the middle: I have the species from Auckland and Christchurch, as well as intermediate localities: a variety, or possibly a distinct species, has shorter antennæ and thorax; this I have from Auckland and Otago. The type form of *C. brevicornis*, as above described, is from Otago; the specimen from Auckland is a variety with still shorter and thicker antennæ, so as to make a considerable approach to *Protolobus*; the example is apparently dirty, and it may possibly be a distinct species; an example from Otago agrees with it. Broun gives a description of a *C. obliquis*, Schon. (*Man. N. Z. Col.*, p. 428); but Schonherr described only one species, *C. obliquesignatus*, which is given by Broun on p. 693. Some years ago I received examples of *C. obliquesignatus* from Broun, with the information that they were found on the ngaeho-tree.

*Catoptes scutellaris*, n. sp. — Minus gracilis, pallide fusco-squamosus apice pallidiore; prothorace subrugoso; elytris thorace latioribus, disco minus convexo, seriatim remote punctatis, ante apicem nodulis parvis quatuor munitis. Long. 6 m.m.

Antennæ rather elongate, second joint longer than the third, eighth nearly as long as broad. Thorax nearly one-fourth broader than long; the sides a good deal rounded and much narrowed in front, less so behind. Elytra broad, distinctly flat on the disc; scutellum rather broad, and touched on each side by a minute swelling of the wing-case, furnished with distinct rows of rather distant punctures, and with two quite distinct distant small tubercles on each placed on the same level, and forming only a slight curve transversely; setosity of the surface indistinct.

Though similar to the Auckland form of *C. obliquesignatus* in colour, this is a very distinct species, approximating in form to *Brachyolus punctipennis*: the more rugose thorax, and larger scutellum are easy and certain marks for distinguishing it from *C. obliquesignatus*.

Otago, Professor Hutton; a single example.

*Catoptes longulus*, n. sp.—*Angustior*, *elongatus*, *pallide griseo-squamosus*; *prothorace elongato*, *obsolete rugoso*; *elytris thorace latioribus*, *seriatim remote punctatis*, *ante apicem nodulis parvis quatuor munitis*. Long.  $6\frac{1}{2}$  m.m.

Closely allied to *C. scutellaris*, but of much narrower form, and pallid griseous colour. The rostrum is rather longer and more slender; the thorax is a little broader than long, and has a slight oblique broad depression on each side near the front; the scutellum is quite distinct, and there is not the slightest swelling at its sides. The elytra are minutely uneven, and the rows of distant punctures they bear are quite distinct, those on the deflexed sides being even more distinct. The setosity of the surface is very slight. The example is, no doubt, a male, and has the basal and apical ventral segments longitudinally depressed along the middle.

Dunedin, Professor Hutton; a single example sent in 1879.

#### BRACHYOLUS, White.

The species for which this genus was established was found in plenty by Mr. Helms near Picton. It has well-marked ocular lobes, and a deeply-emarginate prosternum; the front coxæ are contiguous; the short thick rostrum has short, very deep scrobes, almost as in *Aporolobus*; and the corbels of the hind tibiæ are quite open; this latter character will not permit its association with *Inophlœus*. It is totally dissimilar from *Heterodiscus* in appearance; and the short rostrum, with different scrobes, quite separate it from that genus. I now associate with White's typical species some others differing from it in certain points, as will be noticed in the descriptions, and for which it is possible two other genera may be required; but as I wish to restrict the number of these as much as possible at present, I shall not adopt this course; but I may state that *B. punctipennis* and *longicollis* approximate to *Catoptes* in their characters, though not much in appearance, while *B. bagoooides* approaches *Inophlœus*. I do not suppress the genus; for though it apparently grades into *Catoptes*, yet the typical species of the two look so different that I can well believe that future more careful examination may detect a better means of distinguishing these genera than I can point out at present.

*Brachyolus inæqualis*, n. sp.—*Niger*, *pallide griseo-squamosus*; *prothorace angustulo*, *rugoso*; *elytris brevibus convexis*, *apice abrupte declivo*, *ante declivitatem grosse nodulosis*. Long.  $4\frac{1}{2}$  m.m.

Antennæ dark-red; slender and elongate; second and third joints subequal. Eyes contiguous with front margin of thorax: this latter is about as long as broad, a little rounded in front, and narrowed behind; coarsely rugose. Elytra short,

broad, and convex; obliquely narrowed at the shoulders, so that the base is the same width as the base of the thorax; the surface uneven, the punctures being irregular, and taking the form of large but subobsolete depressions; in front of the apical declivity the third and fifth interstices are united to project as a triangular nodulosity, the inner angle of this nodulosity being the largest and thickest; between the nodulosity and the apex the suture is a little raised.

This differs from the *B. punctatus*—the typical species—by the large nodules placed higher up, and by the longer, more slender antennæ. The three examples found are not in good condition; but I am pretty sure that even fresh examples would not present the elegant appearance of *B. punctatus*. The elytral projections are somewhat similar to those of *Heterodiscus*.

Picton. Helms.

*Brachyolus punctipennis*, n. sp.—Fusco-brunneus, minute squamulosus; prothorace rugoso sed haud inæquali, antè rotundato, postè angustato; elytris seriebus punctorum magnorum conspicuis, interstitio tertio ad basin et quinto apicem versus, magis elevatis. Long. 6 m.m.

This differs from *B. punctatus* by the scrobes being broader and more indefinite behind, and has also a much longer second ventral segment. The upper surface of the rostrum is tricarinate, the eyes contiguous with the thoracic margin; the second and third joints of the antennæ are elongate. The thorax is much narrower than the elytra; the anterior half of the sides gently rounded; the posterior a good deal narrowed to the base; the surface is coarsely rugose, but the rugæ are not sharply defined, and there are no larger depressions or elevations. There is no scutellum visible. The elytra are oblong; gently narrowed at the shoulders, which are wider than the base of the thorax; they bear regular series of large punctures; the third interstice is a little elevated at the base, and the fifth strongly elevated behind; the seventh is also a little elevated, so as to render the outline rather sharply defined; the third interstice has a slight tubercle on the apical declivity, and the suture has a more obscure tubercle still farther down.

Christchurch. Wakefield.

*Brachyolus bagoooides*, n. sp.—Sat angustus indumento griseo dense vestitus; supra subinæqualis elytris basi utrinque supra thoracem leviter producto. Long. 4 m.m.

Densely covered with a pallid incrustation, concealing the sculpture. Rostrum rather more long and slender than in the typical species; the scrobes less visible from above; deep and very short. Eyes moderately distant from the thoracic margin. Thorax not so long as broad; the sides a good deal rounded, and narrowed behind; the surface is apparently uneven, but the sculpture is quite

obscured by the clothing; there appears, however, to be a slight depression of the surface on each side behind the front margin, and another in front of the middle. Elytra clothed, like the thorax and rostrum, with a dense indumentum, through which the setæ protrude, the third interstice, projects distinctly forwards over the base of the thorax; and the scutellar region is apparently depressed; and the third and fifth interstices project very slightly in front of the apical declivity.

Otago, Professor Hutton; three examples agreeing exactly.

*Brachyolus huttoni*, n. sp.—Latior, indumento griseo-vestitus, supra inæqualis, elytris basi utrinque supra thoracem producto. Long. 5 m.m. (Plate XIII., fig. 11.)

This is very closely allied to *B. bagooides*, but is larger and notably broader, and has the inequalities of the surface more conspicuous, the third interstice being remarkably prominent and prolonged at the base, and the apical nodosities more conspicuous; moreover, the suture between these latter is very prominent; the surface bears both pallid and fuscous setæ, while in *B. bagooides* I see only the former.

Otago, Professor Hutton; one example.

*Brachyolus longicollis*, n. sp.—Niger, sat elongatus, tenuiter griseo-squamosus, antennis tarsisque piceis; prothorace elongato, lateribus basin versus quasi marginatis; elytris æqualibus seriebus punctorum ad basin majorum ad apicem obsoletis. Long. 6 m.m.

Antennæ with third joint shorter than the second. Rostrum short and stout; only feebly carinate. Eyes small; separated by a considerable space from the thoracic margin; very widely separated from one another. Thorax quite as long as broad; the sides rounded in front, and a good deal narrowed behind; the surface not rugose, but finely sculptured, and in front almost smooth; at each side behind with the margin distinctly plicate, so as to make the posterior part flat. Elytra rather elongate; without nodulosities; the third interstice slightly raised, and incrassate at the base.

Bealey, Helms; one example. This is a very peculiar species, and might, so far as the systematic characters go, be almost as well placed in *Catoptes* as in *Brachyolus*. The only example shows the strange peculiarity of possessing an elongate narrow excision on the last ventral plate. Possibly the specimen is abraded, but the squamosity is probably always obscure.

#### HETERODISCUS (nov. gen. Otorhynchinorum).

Rostrum modice elongatum, crassum, apice manifeste crassiore superne ad apicem plaga triangulare munitum; scrobes terminales, elongati, subrecti, oculos haud attingentes; antennæ modice elongatæ, scapo oculorum marginem anteriorem attingente. Prothorax lobis ocularibus tantum modice prominulis munitus; coxæ anteriores magnæ prominulæ, contiguæ; metasternum brevissimum; tarsi articulo tertio bilobato.

This genus is closely allied to several others already found in New Zealand: the mentum fills the buccal cavity about as completely as it does in *Catoptes*, and the peduncle is excessively short—almost, in fact, wanting—so that the genus should clearly be placed in Lacordaire's "*Adelognathes*:" it differs from *Catoptes*, however, by the elongate rostrum and the distinct ocular lobes, as well as by the definite elongate scrobes; from *Platyomida* it departs by the ocular lobes, by the mentum more completely filling the buccal cavity, and by the less elongate scape of the antenna; and from *Inophlœus* by the rather more definite scrobes and shorter scape, and the much more filled buccal cavity; the basal portion of the mentum bears a rather deep semicircular impression, the anterior part being smooth and shining; the first ventral segment is moderately long, separated from the second by a suture which departs comparatively little from the rectilinear form; the second is not large, only equal to the two following together; the terminal segment is only moderately large; the legs are elongate and stout, with the tarsi spongy-pubescent; the lobes of the third joint perfectly developed; the form of the wing-cases in the only species known is very curious: they have a flat disc, becoming broader behind, and terminating as two obliquely truncate prominences, the apex being so abruptly declivous that it projects scarcely so far backwards as the angles of the dorsal prominences do. The genus is allied to the Chilian *Megalometis* and *Strangaliodes*.

*Heterodiscus insolitus*, n. sp.—Niger, squamulis et indumento sordide griseo-cens, rugosus, elytris apicem versus latioribus, disco pone medium quadrangulariter prominulo, quasi truncato. Long. 8 m.m.; rostr. incl. 11 m.m. (Plate XIII., fig. 13.)

Upper surface of rostrum with four grooves, the lateral being less distinct than the two median; second and third joints of antennæ moderately long, subequal; thorax subcylindric, nearly as long as broad, slightly narrowed towards the front on the anterior third, longitudinally depressed along the middle, and with the surface coarsely rugose; elytra with slight elevations not sufficiently marked to be termed nodules, and also with regular series of impressed rather distant punctures; apparently truncate behind, the disc forming two slight angles near the suture, and also an external angle on each side, the apical declivous part large; the width of the wing-cases at the base is the same as the base of the thorax, and there is a very minute scutellum; the legs are thick, the front tibiæ mucronate, the claws short and thick: in addition to the squamosity of the surface there are also a few pallid setæ, which become numerous on the legs.

Picton, Helms; a good series.

*Heterodiscus horridus*, n. sp.—Niger, tuberculato-rugosus, indumento sordido plus minusve obscuratus, elytris apicem versus latioribus, disco pone medium quadrangulariter prominulo, quasi truncato. Long. 7 m.m.

This differs from *II. insolitus* by the very rough surface; it is also of less elongate form, with a shorter rostrum, which also has less definite scrobes; the thorax is broader than long, slightly narrowed behind, more narrowed in front, its surface coarsely and deeply rugose; elytra without punctuation, but with a large number of small tubercles irregularly placed, they become broader behind, and are abruptly declivous at the extremity, the dorsal portion projecting backwards as four short obtuse angles, the lateral prominence on each side not reaching so far back as those near the suture; legs rather short. As in *II. insolitus*, the corbels are not in the least cavernous.

Otago, Bakewell; Dunedin, Professor Hutton: one example from each.

#### CUNEOPTERUS (nov. gen. *Rhyparisominorum*).

Rostrum elongatum, capite thoraceque paulo longius, sat tenue, valde arcuatum; antennæ paulo ante medium rostri insertæ, graciles scapo apice clavato, scrobes vagæ, oculis haud attingentibus, his a thorace sat remotis; prothorax elongatus, conico-oblongus; elytra elongata, basi emarginato, apice truncato, lateribus late valdeque deflexis; scutellum nullum; prosternum quam pronoto multo brevius, lobis ocularibus nullis. Metasternum haud brevissimum; abdomen segmentis duobus basalibus valde elongatis, secundo quam tertio quartoque simul sumptis fere duplo longiore, segmento ultimo sat elongato; pedes sat tenues, tibiæ muticæ; tarsi parum elongati, articulo tertio haud lobato.

This is in its appearance amongst the most remarkable of the New Zealand weevils, and should be placed near *Phrynixus Pascoc*, from which it differs by the elongate rostrum with less effaced scrobes, the less abbreviate metasternum and third and fourth ventral segments, and still more importantly in the parts of the mouth, the buccal cavity being larger, the peduncle rather elongate, the mentum apparently quite absent, and all the stout rigid palpi quite exposed; the mandibles have no scar, the third tarsal joint is deeply excavate above for the reception of the terminal joint, and its hind margin is feebly emarginate; there is no dilatation of the apices of the tibiæ, and the tarsi are densely pubescent beneath.

*Cuneopterus conicus*, n. sp.—Elongatus, antèrius angustatus, posterius truncatus, indumento fusco obtectus, supra sub-nodosus. Long. absque rostro 11 m.m.; rostr. incl. 14 m.m. (Plate XIII., fig. 14.)

Antennæ slender, second and third joints very elongate, club slender, acuminate oval; rostrum glabrous in front, and very finely punctate; eyes small; on either side of the upper face of the rostrum at the base is a broad vague groove, which causes the middle to appear vaguely broadly costate; thorax longer than broad, the surface and sides uneven, a deep depression at the base in the middle, and a ridge on the front part, besides less distinct inequalities; elytra broader from the base backwards, the apex remarkably abruptly truncate, with some slightly elevated nodules, the most distinct of which are lateral, and two immediately in

front of the terminal truncation; the pseud-epipleuræ are remarkable for their excessive size, and bear distant large, though rather obsolete, serial punctures.

Greymouth. Mr. Helms has obtained two examples of this remarkable weevil; the first was found in a spider's web some years ago, and the second under a piece of wood in a wet place.

#### DERMOTRICHUS (nov. gen. Rhyparisominorum).

Corpus irregulariter setosum. Rostrum gracile, arcuatum prothorace paulo longius, scrobes laterales oculos attingentes. Oculi parvi subrotundati a thorace sat distantes; antennæ scapo apice clavato.

This genus is closely allied to *Phrynixus* Pascoe, but possesses elongate though rather vague scrobes reaching to the small eyes. The antennæ, too, are inserted evidently in front of the middle of the rostrum. The other characters, so far as I can see, are similar to those of *Phrynixus*. The tarsi are small, with the third joint short, not bilobed but deeply depressed above for the insertion of the terminal joint. The thorax is quite destitute of ocular lobes; the metasternum very short, the second ventral segment excessively large, the third and fourth extremely short.

*Dermotrichus mundulus*, n. sp.—Piceus, haud nitidus, setulositate crispata irregulariter vestitus. Long.  $3\frac{1}{2}$  m.m. (Plate XIII., fig. 15.)

Rostrum slightly broader in front of the antennæ, and there almost smooth and shining, behind sulcate and minutely setulose, with two minute tufts between the eyes; antennæ rather short, the scape gently clavate at the apex; second joint longer and thicker than the third, the funiculus only indistinctly articulated; the club elongate, obtuse, its first joint extremely long, the others quite short. Thorax slightly longer than broad, its greatest width in the middle, gently and equally narrowed to the front and the base, its surface not convex, but somewhat uneven and bearing ochraceous (or fuscous) thick setæ, which are here and there more condensed and elevated. Elytra of peculiar form, being much narrowed to the base, which is of the same width as the thorax, becoming broader behind in a long slope, covered with angulate transverse fasciæ of condensed setæ, two of these, one on the middle and one behind it, being very distinct; scutellum invisible; legs only feebly setose.

Greymouth. Helms, No. 316. The three examples exhibit a good deal of difference in the clothing of the wing-cases, which may be due partly to variation, partly to abrasion.

#### STEPHANORHYNCHUS.

*Stephanorhynchus aper*, n. sp.—*S. curvipedi* similis sed latior; rugosus, indumento plus minusve variegato vestitus, elytris dorso sellato-tuberculato. Long.  $3\frac{1}{2}$  to  $6\frac{1}{2}$  m.m.

Antennæ with rather elongate slender club, the second joint of which is subquadrate, and about as long as the first; rostrum keeled along the middle, a

depression between the eyes, vertex bicristate. Thorax as broad at the base as it is long, much narrowed in front, and constricted behind the front margin, obscurely tuberculate. Elytra uneven, shoulders a little prominent, the middle with two flattened elevated spaces, forming together a kind of saddle, each being abruptly defined externally, but only sloping gently towards the other. Femora triangularly toothed, the tooth on the posterior extremely large. This is closely allied to *S. curvipes*, but is readily distinguished by the club of the antenna, which has not the abnormal form it has in the species named. *S. aper* is a broader insect, with a comparatively shorter and broader thorax, and more prominent shoulders to the elytra. Like *S. curvipes*, it varies greatly in size and colour.

Picton. Helms.

#### CRISIUS.

*Crisius obesulus*, n. sp.—Brevior, dense squamosus, rufo-tinctus, elytris in partem anteriorem minute fasciculatis. Long. 5, lat.  $3\frac{1}{4}$  m.m. (Plate XIII., fig. 16.)

Of very short form, densely covered with scales, which are in large part of a reddish colour, with here and there ochraceous patches. Rostrum scarcely so long as the head and thorax, its upper part squamose, the lower two-thirds bare, punctate. Antennæ red, rather short. Thorax irregular, the anterior two-fifths constricted, the middle with two conical tufts; two smaller tufts on the front margin. Scutellum very short, transverse. Elytra very short, broad at the base, shoulders prominent, the basal regions with small elevations, some of which bear a few scales, and on the basal and external portion rows of punctures may be seen, much interrupted by the inequalities of the surface. Legs squamose.

This is of much shorter form than *C. binotatus*, the typical species of the genus, and is very distinct by the small scutellum, shorter rostrum, &c.

Greymouth. Helms.

#### PENTARTHURUM.

*Pentarthrum cephalotes*, n. sp.—Subcylindricum, piceum, nitidum, rostro breve, vertice globoso-inflato, oculis a thorace remotis; prothorace crebre subtiliter punctato; elytris profunde striatis, apice declivo marginato. Long.  $3-3\frac{1}{2}$  m.m.

This species is remarkable by its large globose head, so that the rostrum is only as long as it; the rostrum and the head behind the eyes are finely punctate, the inflated vertex impunctate. The thorax behind is almost broader than the elytra, greatly narrowed in front, there constricted, smooth in front of the constriction; elsewhere closely and finely punctate, with more or less abbreviate smooth line on the disc. Elytra very deeply striated, the striae coarsely and densely punctured, so that the punctures are confluent, the interstices narrow, indistinctly seriately punctate; the apex rather abruptly declivous and distinctly marginate. Legs red.

Picton, Helms; three examples, all I think of the female sex.



*Pentarthrum porcatum*, n. sp.—Subcylindricum, piceum, nitidum; capite pone oculos strangulato, his prominulis; prothorace dense fortissime punctato; elytris profunde striatis, apice marginato. Long. rostr. incl.  $3\frac{1}{2}$ –4 m.m.

This is readily distinguished by the extremely coarse thoracic punctuation, which extends much in front of the anterior constriction. Rostrum moderately stout, cylindric, more than half as long as the thorax, punctate, rugose between the eyes, these abruptly prominent, vertex perfectly smooth, quite as long as the length of the eye; antennal insertion considerably behind the middle. Thorax very elongate, very much narrowed to the front, very coarsely and densely punctate, with a strong constriction a considerable distance behind the front margin. Elytra parallel-sided, at the apex distinctly but not broadly margined, deeply striate, the striae bearing very coarse punctures, which are only imperfectly separated from one another; interstices narrow, not punctate; underside very coarsely punctate. The male has the rostrum in front of the antennae rather shorter and broader, the base of the abdomen and apical portion of the sternum much depressed.

Dunedin, Hutton; Greymouth, Reitter; Picton, Helms. This is no doubt allied to *P. sculpturatum*, Broun, but differs from the description by the differently sculptured less rugose rostrum, the absence of any hairs, and other particulars. I have seen only one male, the example from Dunedin, but I have no doubt it is the same species as the Greymouth female; the two examples from Picton are a smaller variety of the female, having shorter elytra and more densely-placed smaller punctures in the striae, but are, I think, really the same species.

*Pentarthrum confertum*, n. sp.—Angustulum, subdepressum, nigricans, capite. rostro, antennis pedibusque rufis, elytris circa humeros fusco-rufis; rostro elongato, cylindrico; elytris profunde striatis, striis densissime punctatis. Long. rostr. incl.  $2\frac{3}{4}$  m.m.

Rostrum about as long as the thorax, cylindric, shining, impunctate. Antennae slender, their insertion slightly behind the middle; eyes but little separated, vertex small, foveolate. Thorax rounded at the sides and much narrowed in front, where it is distinctly constricted, it is densely, moderately coarsely punctate, the disc flattened. Elytra but little shining, with striae, in which are placed punctures so densely that the intervals have become much obliterated; the longitudinal interstices are finely rugulose.

This is a very distinct species, somewhat similar to *P. parvicorne*, but readily distinguished by the slender antennae. The example described is no doubt a female.

Picton. Helms; one example.

*Pentarthrum constrictum*, n. sp.—Angustum, subdepressum, fulvo-rufum; prothorace elytris angustiore, anterior fortiter constricto, disco subimpresso. Long. rostr. incl.  $2\frac{1}{4}$ –3 m.m. (Plate XIII., fig. 17.)

Rostrum finely sculptured, dull, eyes moderately large; antennae small and stout, inserted at the middle of the rostrum. Thorax elongate and narrow, evidently

narrower than the elytra, rounded at the sides, and with a strongly constricted anterior part, flat, longitudinally depressed on the middle, rather closely but somewhat indefinitely punctured, a little rough, with an obscure smooth space in the middle of the depression. Elytra elongate, shining, flat, with regular series of coarse punctures, the interstices not raised, impunctate. The female has the rostrum more cylindric in front, and shining.

Greymouth. Helms, No. 76. This distinct little species may be placed next *P. parvicorne*.

#### MICROTRIBUS.

*Microtribus pictonensis*, n. sp.—*Parum elongatus*, *fusco-piceus*, *subcylindricus*, rostrum breve, *crassiusculum*, *punctatum*, *antennis brevibus, crassiusculis*; *prothorace crebrius fortiter punctato*; *elytris parum profunde striatis, striis fortiter punctatis*. Long. rostr. incl. 3 m.m.

Rostrum closely punctulate, dull; antennæ inserted behind the middle, very short, with small slender club; eyes prominent; thorax rounded at the sides, and much narrowed in front, where it is only very obscurely constricted; coarsely punctate; scutellum minute; elytra with series of punctures becoming more obsolete towards the extremity, but quite coarse at the base; interstices sparingly seriately punctate.

Picton, Helms; one example. This differs from its only congener—*M. huttoni*—by its thicker rostrum and differently formed antennæ, which are more like those of *Pentarthrum*: the insect, indeed, has much more the appearance of an obscure *Pentarthrum* than of its congener, but it is abruptly differentiated from the genus named by its approximate front coxæ.

#### INOSOMUS, Broun.

*Corpus breve, crassum, setosum*; *antennæ breves, funiculo septem articulato*; *rostrum breve, a capite sat abrupte discretum, oculis subinferioribus*.

This is a remarkably distinct genus, having the appearance of a Scolytid, but with a true rostrum and slender anterior tibiæ not denticulate externally; owing to the peculiar position of the eyes, which are not at all visible from the front, it would, perhaps, be placed in Wollaston's arrangement of the *Cossonidæ*, near to *Himatium* and *Coptorhamphus*, though it has really little connexion therewith, and is a great deal more like *Stenoscelis*. In the New Zealand list it may be placed before *Xenocnema*. The rostrum is rather longer than broad, furnished with true longitudinal scrobes, in which the scape is received; this attains the anterior margin of the eye; joints 2–7 of the funiculus are very short and difficult to count; the club is rather short and stout, obtusely acuminate, distinctly ringed, the larger basal joint being glabrous; on a slight inspection the insect appears blind, but the eyes are of moderate size, and are placed quite laterally, extending more to the under surface than the upper. The prosternum is emarginate, and the front coxæ are minutely separated; the middle coxæ more

distinctly so; the metasternum is not elongate, but is longer than the first ventral segment; this is rather more prominent than the other segments, which are very short, with the exception of the last. The front tibiæ are slender, armed at the apex externally with a curved mucro, internally with a sharp denticle; the middle tibiæ are armed externally with an emarginate prolongation, the lower angle of which is quite spinose, and the hind tibiæ have a similar termination. All the tarsi are very slender, the third joint being not thicker than the others, and not bilobed.

I have little doubt the insect thus characterized is the genus described under the name of *Stenopus* by Broun, *Man. New Zealand Coleoptera*, Pt. II., p. 739, and afterwards re-named *Inosomus*. Broun placed the genus in *Scolytidæ*, alluding to its resemblance with *Cossonidæ*, however; but the possession of a true rostrum and slender anterior tibiæ, not denticulate externally, are characters that require it to be placed at present among the *Cossonidæ*. In Broun's description of the species *Stenopus rufo-piceus* an unfortunate error occurs; the first line on p. 740, instead of "seven interstices are a little elevated behind, are merged," should read, "seventh interstice is a little elevated behind and merged." This insect was found by Helms at Picton.

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### Fam. ANTHRIBIDÆ.

#### ANTHRIBUS.

*Anthribus tuberosus*, n. sp.—Nigricans, dense vestitus, rostro elytrorumque lateribus griseo-ochraceis, antennis pedibusque testaceis, his conspicue maculatis; elytris tuberculis grossis ornatis. Long.  $4\frac{1}{4}$  m.m. (Plate XIII., fig. 18.)

This species does not appear to be very closely allied to any other, but may be placed near *A. discedens*. It can be readily distinguished by the very large basal tubercles of the elytra, and the fact that the sides of the wing-cases are covered by pallid, the middle by dark, pubescence. Antennæ not so long as the body, yellow; first joint covered in front by white pubescence; second joint very feebly pubescent, oval; third much longer than the following, swollen at tip, 6–8 sub-equal, each slightly swollen at the tip; ninth as long as the eighth, equal to the two following together, and forming with them a well-marked club. Rostrum short and broad, densely covered with very pallid griseo-ochraceous pubescence. Eyes convex, only moderately large, rather deeply emarginate. Thorax much broader than long, with well-marked carina distant from the base, and a little angulate in the middle, bent forward at the sides, forming an obtuse angle, and extending one-third of the length to the front; the outline of the sides is uneven, and a little narrowed towards the front; the surface is black variegate on the middle, with pallid pubescence. Elytra with two extremely large centro-basal tubercles, with two smaller, but yet large post-median tubercles, and just before the declivity with

four small prominences in a transverse straight line; the pallid pubescence covers the sides of the basal tubercles, their front being black; there is also much dark colour at the apex, and it extends along the suture, though more contracted in the middle part. Legs pallid, with the femora and tibiæ largely marked with fuscous on the middle.

Greymouth. Helms, No. 64.

*Anthribus cucullatus*, n. sp.—Nigricans, pube fusco-griseaque vestitus, rostro dense sub-albido pubescente, antennis pedibusque testaceis, his fusco-variegatis; thorace margine anteriore in medio bicristato, elytris tuberculis parum elevatis munitis. Long. 4 m.m.

Allied to *A. tuberosus*, but abundantly distinct. Antennæ formed as in that species, but with less elongate third joint, and the first and second joints densely covered in front with white pubescence like that of the rostrum. This latter is short and broad. The thorax is rather strongly transverse, covered with variegate pubescence, which is condensed in front, forming two small tufts projecting over the front; the carina is remote from the base, sub-obsolete in the middle, only a little deflected to the front at the sides, and forming a very rounded angle; the elytra have broad but slightly elevated centro-basal and post-median tubercles, and four indistinct nodosities, before the declivity; they are densely covered with mottled pubescence, which does not form any distinct pattern; the legs are variegate.

Although the form and the structural characters bring this very near to *A. tuberosus*, it is quite different, on account of the small tubercles of the elytra, and the colour of the sides.

Otago. Professor Hutton; one example.

*Anthribus inornatus*, n. sp.—Niger, opacus, haud variegatus, pubescentia concolore vestitus, antennis corporis dimidio longioribus. Long.  $4\frac{1}{2}$  m.m.

Rostrum about as long as broad. Eyes large and prominent, short, oval, truncate rather than emarginate in front. Antennæ with the intermediate joints more or less pubescent; second joint pyriform, rather slender, but a good deal stouter than the third, the three terminal joints forming a well-marked rather large club; the ninth longer than broad, gradually broader from base to apex; tenth not quite so long as broad; terminal joint longer than tenth, but not so long as ninth. Thorax about as long as broad, much narrower from the base to the front. Carina well separated from the base, gently curved, turned forwards at the sides, forming an obtuse angle; the surface densely, evenly, and finely rugose. Elytra substriate, the striae consisting of regular series of very distinct punctures. Legs and tarsi black, more or less pubescent at the knees.

Although closely allied to *A. incertus* and *A. vates*, this is distinguishable at a glance by the uniform black colour.

Greymouth, Kumara, Helms.

*Anthribus concolor*, n. sp.—Piceus, fusco-pubescens, antennis pedibusque rufis, illis corporis dimidii longitudine, clava obscura. Long. 4 m.m.

This agrees in most particulars with *A. inornatus*, but differs in the more pallid colour, and has also shorter, more slender antennæ; the thorax, too, is a little less elongate. In sculpture and all other characters the two species are very similar.

Picton. Helms.

*Anthribus obtusus*, n. sp.—Subcylindricus, nigro-fuscus, squamulis variegatis vestitus; antennis pedibusque fusco-rufis, illis corpore brevioribus; prothorace carina transversa ad basin per-propinqua, angulis posterioribus haud acutis. Long. 4 m.m.

This is remarkably similar to *Etnalis spinicollis* in appearance, but differs in important structural characters, so as to stand systematically intermediate between the species named and *A. huttoni*. The antennæ are slender, a good deal shorter than the body, the basal joint much exposed; third joint very slender, elongate, not at all clubbed at the apex; 4–8 each infusate at the apex; ninth broader from base to apex, slightly longer than broad; tenth shorter, terminal joint obtuse, about as long as broad. Rostrum short and broad. Eyes moderately large, emarginate, but not deeply so in front; the surface very densely and minutely sculptured, feebly pubescent. Thorax not so long as broad, only a little narrower in front, the sides scarcely sinuate in front of the base; the carina straight, extremely near the base; it is not continued upwards along the sides, but is scarcely prominent at the angles; the surface is covered with fuscous scales or hairs, and has a large patch of white, or pallid ochreous colour, on the basal portion of each side. Elytra not elongate, behind the base a little transversely depressed, with series of punctures, which are quite obsolete on the apical portion, the external ones being more distinct; they are covered with griseous, fuscous, and nearly black hairs or pubescence in an irregular spotted manner; legs red; femora more or less dark across the middle; the tarsi with the apices of the joints infusate.

Picton. Helms; two examples. This is distinguished from *Etnalis spinicollis* by the simple angles of the thorax, and the much less deeply divided eyes; the thoracic carina, too, is not absolutely contiguous with the base of the elytra.

#### PROSCOPORHINUS.

*Proscoporhinus albifrons*, n. sp.—♂ Fusco-viridescens, hic inde rufescens, capite antierius albido-piloso, elytris inæqualibus, antennis corpore fere triplo longioribus, testaceis. Long. 5 m.m. (Plate XIII., fig. 19.)

The prevalent colour is a pallid fuscous, passing in places to a greenish tinge, and in other spots to a reddish. The front of the head, and also the basal joint of the antenna, presents a vertical face, covered with a white pubescence, which is denser and more patchy on the middle of the head; in front of the insertion of each antenna there is a small pointed projection or tuft. The thorax is without punctuation, and has a fine white pubescence on the middle; the transverse line in front of the base strongly angulated on either side. The elytra have a very large prominence on either side of the suture behind the scutellum, and the third interstice from the suture projects at the hinder part so as to form a sort of bulla, the fifth interstice projecting in a similar though slighter manner; the striæ are rather deep, but irregular, and consist of series of rather coarse punctures; the interstices bear a few small fuscous spots or tufts.

A specimen of this species was sent by Mr. Helms as No. 389, and was found on the racecourse, 12th Nov., 1880. The female is, I believe, unknown. *Anthribus meinertzhageni*, Broun, is no doubt a *Proscoporhinus*. This genus was founded on a rare New Caledonian insect, and its discovery in New Zealand is of some interest on this account. The entomology of New Caledonia is only very imperfectly known, and we may anticipate that a greater affinity will be found to exist between it and that of New Zealand than is at present suspected.

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### Fam. CERAMBYCIDÆ.

#### CEMONA, Newman.

Though this is one of the oldest and best known of the New Zealand Longicorns, until recently only one species was recognised. I have for some years been aware that there are several species, though I have not previously been able to understand them; but as I have now recognised that the peculiar sexual differences in the sculpture of the thorax seen in other genera of the sub-family Cerambycides exist in a marked form in this genus, I am able to arrange satisfactorily the specimens at my disposal. According to this character there are two groups, distinguished by the prosternal sculpture in the male sex; and I may mention that it appears that this is correlative with a well-marked difference in the concealed internal supplementary abdominal segment of this sex. In all the species yet discovered the females have the flanks of the prothorax impunctate, while in the other sex they are punctate.

Sect. 1. Prosternum without true punctuation in the male and female.

*Cemona humilis*, Newm.—This species is of slender form, with the elytra a little attenuate behind, the thorax deeply furrowed by transverse rugæ, and, when the pubescence is removed, quite shining; the femora and the scape of the antennæ are infuscate externally. The two sexes are extremely similar, but the male has the

flanks of the thorax punctate, and the antennæ slightly longer than those of the female. The dorsal plate of the supplementary internal segment is in the former sex infuscate at the tip and emarginate; the female has this supplementary segment replaced by a very short, quadrate, transparent semimembranous ovipositor. The length attained is 15 to 18 m.m.

I have several males of this species found at Auckland by Lawson, and two females from old collections, one of the latter accompanied by a male agreeing with the Auckland males. It is the only species known to me with the femora fuscous at the tip; and though it is apparently the common species in collections and is usually named *Æmona hirta*, Fab., yet I cannot consider it to be the Fabrician insect, as that author says, specially "pedes grisei." I therefore retain for the species the trivial name proposed by Newman.

*Æmona villosa*, n. sp.—The individuals of this are much larger than those of *Æ. hirta*, and it is a broader insect, not attenuate behind; the thorax is not in the least rounded at the sides, but is straight, or becomes just perceptibly broader behind; it is very deeply furrowed transversely, and the femora are red, without infuscation; the length is as much as 27 or 28 m.m.

I have seen only two examples, one sent from Greymouth some time since, and then supposed to be a large example of the preceding species, and an old individual obtained from Murray's collection. These accord with the size and form represented by White as *Isodera villosa*; and there can, I think, be no harm in my retaining the trivial name, though it would only confuse the student if the older authors were cited as the authority for it.

Notwithstanding the great discrepancy from the following, I have a suspicion this may be only the female thereof, in which case the trivial name will be abandoned altogether.

*Æmona hirta*, Fab.—I have one male of this. Compared with *Æ. humilis*, it is a larger and broader insect, with the elytra not attenuate behind, the femora and scape of the antennæ entirely pallid. The sides of the thorax are a little rounded, the transverse furrows are not quite so deep, and the flanks are opaque, not shining as in *Æ. humilis*, and more finely punctured than in that species. The abdominal structure is the same as in the corresponding sex of *Æ. humilis*; the length is 20 m.m.

This example was sent me several years ago by Mr. Helms, and considered to be the common species; probably it may be so in the South island; and it is possible, as already remarked, that *Æ. villosa* may be its female.

SECT 2. Prosternum punctate in the male sex, impunctate in the female.

*Æmona plicicollis*, n. sp.—Pallide ferruginea, griseo-vestita, antennis pedibusque

cum tarsis concoloribus; prothorace sat profunde transversim ruguloso. Long. 13 m.m.

Mas: prosterno fere undique profunde arguteque punctato.

This species, of which I am acquainted with only a single male, is very distinct, though looking at first sight like a small *Æ. hirta*. The prosternal structure and sculpture is, however, markedly different; in the male sex of *Æ. humilis* and of *Æ. hirta*, the prosternum in front of the coxæ is divided by a transverse depression into two parts, the anterior of which is polished, and the posterior traversed by some obsolete wrinkles, the sides of the prothorax being punctate; in the present species the anterior part is very much reduced in size, and the posterior part is entirely covered, like the sides of the thorax, by a coarse deep punctuation. The supplementary concealed anal segment is very different in its form from that of the two species mentioned, the dorsal plate being broad and short, gently rounded behind, not emarginate in the middle. As other characters, it may be mentioned that the thoracic rugæ are not so deep and regular as in the other species of this group, that the sides of the thorax are rounded, and that the legs, including the tarsi, are entirely pale.

Greymouth, Belfrage. I have two female examples from Picton, which I have little doubt pertain to this species, but as they were not found in the same district, and present some differences, it is advisable to consider the species as established on the male only. These examples are 17 or 18 m.m. long, darker in colour, with the thorax straight at the sides; the prosternum and sides of the thorax without true punctuation.

*Æmona inaequalis*, n. sp.—Ferruginea, griseo-vestita, antennis pedibusque cum tarsis concoloribus; prothorace cylindrico, parum profunde rugoso, nec tuberculato neque transversim plicato. Long. 13 m.m.

Comparing the male of this species with that sex of *Æ. plicicollis*, it will be found that though exceedingly similar, the present species has the sculpture of the pronotum obsolete, while the sexual punctuation on the sides of the thorax is a little coarser and denser. The other characters are the same as in *Æ. plicicollis*, the prosternal punctuation being equally very strongly developed, and the supplementary apical segment of the males similar.

Picton. Helms; two examples.

*Æmona simplicicollis*, Broun.—Ferruginea, griseo-vestita, antennis pedibusque cum tarsis concoloribus; prothorace minus cylindrico, subquadrato, haud plicato, versus angulos obsolete tuberculato. Long. 12–14 m.m.

The thorax is just about as broad as it is long; it has no transverse grooves, but at each side near the front there is a slightly raised shining tubercular space, and nearer the middle, nearly in a line with it a larger rugose elevation; on the middle



there is another feeble elevation becoming linear in front, and on the basal portion some obsolete inequalities. I am acquainted only with the female.

Christchurch, Wakefield; Picton, Helms; one example from each source.

*Æmona mutica*, n. sp.—Angustior, ferruginea, griseo-vestita, antennis pedibusque cum tarsi concoloribus; prothorace cylindrico, fere esculpturato, opaco, tenuiter pubescens. Long. 11 m.m.

This is the most slender of the species, and may be readily known by the almost complete absence of thoracic sculpture, the surface being feebly uneven, with an obscure slight carination of the disc. The male has the sides of the thorax a little rounded, but in the female they are straight; the former sex has the flanks of the pronotum punctate, and all the prosternum, except the front, similarly punctate; the supplementary segment is like that of *Æ. plicicollis*.

Picton, Helms; one pair.

*Æmona debilis*, n. sp.—Minor, angusta, ferruginea, griseo-vestita, antennis pedibusque cum tarsi concoloribus; prothorace angusto, subcylindrico, lateribus leniter curvatis, parce obsoleteque sculpturato, crebrius pubescente. Long. 10 m.m.

Rather less elongate than *Æ. mutica*, with a less cylindrical thorax, which is more pubescent and has some feeble asperities on the middle; in the male sex the prosternum and the sides of the prothorax are punctate, but less definitely than in the other species of this group, and the punctuation is rendered still more indistinct by the pubescence. Without a careful examination these parts appear impunctate as in the female, but the species cannot be mistaken as belonging to the first group, in consequence of the small size and absence of plication on the thorax.

Picton, Helms; one pair.

#### OPHRYOPS, White.

*Ophryops dispar*, n. sp.—Elongatus, angustulus, testaceus, capite antennarum basi, thorace pedibusque ferrugineo-testaceis, antennis articulis tertio quarto quintoque plus minusve fuscis; thorace dense subtilissime punctato punctisque majoribus sparsis parum conspicuis, subopaco utrinque longitudinaliter impresso, medio area angusta antice tenuissima polita; elytris, punctis majoribus impressis profundis. Long. 18 m.m. Fem.(?) eadem species; prothorace nitido fortiter inæqualiter punctato, hic inde subtuberculato. (Plate XIII., fig. 20.)

The thorax of the male is very broad, abruptly constricted behind, covered with a dense porous-like punctation, here and there with larger punctures; on each side there is a peculiar polished space, somewhat depressed, but terminating in front considerably behind the front margin in a very feeble elevation placed somewhat more towards the middle; the medial smooth space extends from front

to base, being very slender in front, but dilated on each side at the basal margin. The scutellum is impunctate; the elytra are equally covered with large punctures, the colour of the punctures being chocolate-red, and along each wing-case there are two or three feeble longitudinal pallid veins.

Greymouth, Helms, No. 127. *O. pallidus*, Broun, Man., p. 576, is, I have little doubt, this species. This insect was sent me some years ago, having been captured, I believe, at Maori Creek, by Mr. Lins: and the two examples were sent as being one species, though there appears to be no direct evidence of this beyond the general resemblance between the two: I myself likewise think them one species, though the prothoracic differences are so marked and extreme that they are almost what would be considered of generic importance amongst the allies; and also in the supposed female the longitudinal veins on the wing-cases are not present; it is therefore possible that the supposititious female may not really belong to the species. The genus was established by White, on a single male, closely allied to that which I have described, but considerably larger, and with differences in the prothoracic sculpture; it has since remained unknown to entomologists, its position being somewhat uncertain. Lacordaire is quite in error in supposing (*Gen. Col.* viii., p. 378) that the eyes present the remarkable form they do in the genus *Bardistus*: that he should have made this mistake is curious, as White gives a figure of the side of the head and eye, which is approximately correct. This at present is all the information I can give about the genus, as the condition of the two examples I have received does not warrant a prolonged examination; but I think there is little doubt it will prove to be closely allied to the New Zealand *Didymocanthæ*.

#### DIDYMOCANTHA.

*Didymocantha quadriguttata*, n. sp.—Capite thoraceque rufis, antennis pedibusque testaceis, elytris pallide testaceis vitta laterale guttulisque quatuor discoidalibus nigris; corpore subtus plus minusve infuscato. Long. corp. 11–12 m.m.

Head and thorax castaneous or rufescent, with many white hairs, the latter with coarse punctuation along the middle, and just behind the middle, with a slight tuberculation, which is prolonged backwards as a smooth, not raised space not quite reaching the basal margin; on each side of the disc, near the front, there is a more distinct tubercle, the sides behind the middle with an acute tooth. Scutellum clothed with pallid scales or hairs. Elytra with rather coarse, definite punctuation, becoming a little finer at the apex, and with a scanty pallid pubescence, in front of the middle with two very minute black dots, and behind the middle with a pair of slightly larger dots. The male has the antennæ much longer than the body, but in the female they extend only slightly beyond the extremity of the elytra.

This is very closely allied to *D. sublineata*, but is a rather larger insect, with not quite so coarse punctuation on the wing-cases, and with the dark lines reduced to small dots. *D. sublineata* I have not seen from the South Island.

Picton, two males; Greymouth, one female. No. 379. Helms.

## ANENCYRUS (nov. gen. Cerambycinorum).

Corpus parum elongatum, minus pubescens, thorace elytrisque inæqualibus, illo lateribus haud spinosis, his abdomine paulo brevioribus: antennæ (feminæ?) corpore breviores, filiformes. Caput breve, frons verticalis sat elongata. Oculi laterales, supra distantes, magni, subtiliter granulati. Coxæ anteriores globosæ, acetabulis a prosterno bene separatis, posterius apertis, externe parum prolongatis, trochantinis conspicuis. Elytra apicem versus angustata, apicibus oblique truncatis. Metasternum convexum, sat elongatum, episternis latis. Abdomen normale, segmento basale secundo longiore, sequentibus inter se subæqualibus. Pedes modice elongati, femora basi tenue; tarsi posteriores articulo basale sequentibus duobus simul sumptis æquale, vix longiore.

This is another genus which seems to have no near ally, and which it would be very difficult to place in Lacordaire's arrangement. In the New Zealand list it will go next to *Gastrosarus*, to which, however, it is by no means closely allied, being different in form and sculpture, having the front coxal cavities with a broad aperture, externally displaying the trochantin, while internally they are separated by a well-marked convex process of the prosternum; the front of the head, too, is elongated, instead of displaying the remarkable abbreviation of *Gastrosarus*.

*Anencyrus discedens*, n. sp.—Rufus, femorum basi, elytrorumque costis abbreviatis ad basin et ad latera pallide flavis; thorace impunctato, brevissime flavo-pubescente, disco obtuse trinodoso; elytris fortiter irregulariter punctatis. Long. 11 m.m.

Antennæ slender, not quite reaching extremity of body; 3rd, 4th, and 5th joints with a few rather long hairs beneath; the 4th rather shorter than the 3rd or 5th, which are about equal; eyes convex, but little distant from the thorax. This latter is rather broader than long, with a very large but obtuse prominence on each side of the middle, and between them, just behind the middle, with a smaller prominence: these protuberances are polished and shining, the rest of the surface being covered with a very delicate minute pubescence; this is of a pallid colour, the thorax itself being of a darker, more vinous red, than the rest of the surface. The elytra are peculiar both in form and sculpture; their basal portion is flattened, but bears a short longitudinal elevation near the suture, and from near the shoulder there extends backwards a fold or plication, which, on the middle of the length, is very abruptly defined and costiform, and then ceases, there being external to it at the middle of the elytra, close to the side, a shorter abrupt costa; these costæ are pallidly flavescens, the rest of the surface being of a tawny-red colour; the elytra are evidently narrowed behind and leave the terminal segment exposed; the apices not at all spinose; they have a peculiar rough irregular

sculpture, which is not true punctuation, and is not present on the costæ; they have a few short feeble hairs, most distinct at the apex.

Picton, Helms; one mutilated example of quite uncertain sex.

CERALOMUS (nov. gen. Cerambycinorum).

Corpus parvum, tomento subtilissime vestitum. Caput exsertum, fronte minus elongato, abrupte perpendiculare; oculi omnino divisi, supra valde distantes, a thorace remotis. Antennæ corpore longiores, sat tenues, simplices, articulis 3-6 apicibus subnodosis. Thorax lateribus obtuse angulatis. Coxæ anteriores haud prominulæ, parum transversæ, acetabulæ extus latissime apertæ, trochantinis maximis; inter se parum distantes. Acetabula intermedia extus late apertæ; metasternum elongatum, episternis modice latis.

This is another genus, apparently without any ally, to be placed in the New Zealand list near Calliprason, to which, however, it is only very distantly allied; the facies is rather that of the Lamiadæ, such as *Hylolasius* or *Tetrorea sellata*, and I had no idea until I investigated it that it would prove a Cerambycid, though really its structures are quite normally Cerambycid; the antennæ are inserted on the summit of the depressed head, far from the mandibles; the eyes are so deeply emarginate that they are practically divided into two parts, of which the superior is much smaller than the inferior; they are placed far from the front margin of the thorax, and are finely faceted; the front coxal cavities are open behind, the mesosternum being very approximate to them; a short process, broad in front, imperfectly divides them, and they project only slightly beyond it; the middle coxæ are widely separated; the femora have the basal half much more slender than the outer, the division between the two parts not abrupt; the tibiæ are very slender, and the basal joint of the hind tarsus is elongate, longer than the two following together; the hind body is normal, its five segments sub-equal in length.

*Ceralomus morosus*, n. sp.—Niger, sub-olivescens, opacus, pube argentea subvariegatus, pedibus fuscis, tarsis antennisque testaceis, his articulis versus apices nigricantibus; elytris haud punctatis, omnium subtilissime rugulosis. Long.  $7\frac{1}{2}$  m.m.

Antennæ with the first six joints sparingly armed with erect hairs beneath, scape rather long, but little thicker at the apex than at the base, each of these joints (except the basal and second) swollen at the apex, and with the incrassate part black; thorax as long as broad, each side with a large angular prominence, and the disc between these with two large obsolete elevations, the surface only minutely sculptured, with a small spot on the middle; between the prominences smooth; elytra slender, even, dull olivaceous black, marbled with a minute silvery

pubescence, which itself is encroached on by small bare spaces; apices singly rounded; femora piceous, but little paler at the base; tibiæ sordid testaceous, with a few long erect hairs; tarsi rather more dilute.

Greymouth, Helms; a single example, in very bad preservation. No. 128.

#### XYLOTOLES.

*Xylotoles germanus*, n. sp.—*X. nano* proxime affinis, sed antennis tenuioribus articulo tertio quarto evidenter longiore facile distinguendus. Parvus, fusco-testaceo-cupreus, pube grisea vestitus, elytris plus minusve fusco-variegatis; pedibus antennisque testaceis, his articulis apice fusciscente, illis femoribus extrorsum fuscis. Long  $3\frac{1}{2}$ – $4\frac{1}{2}$  m.m.

Though very similar to the smaller examples of *X. nanus*, I have no doubt this is distinct, as, in addition to the structure of the antennæ mentioned above, it exhibits other differences, being of shorter form, with shorter thorax and metasternum. Like *X. nanus*, it varies a good deal in colour.

Dunedin, Professor Hutton; a small series of examples.

*Xylotoles fasciatus*, n. sp.—*Minimus, niger, subænescens*, pube grisea variegatus, elytris post medium fascia conspicua pallida, tibiis testaceo-annulatis, antennis fuscis, articulis basi testaceo. Long. 3 m.m.

This, the smallest species of the genus, is very distinct from *X. germanus*, the elytra having the minute punctuation more sparing and distinct. The antennæ are slender, with the third joint much longer than the fourth. The thorax is cylindrical, elongate. The elytra are very slender, with curved sides, a fine sutural stria, a few coarse punctures at the base, with a well-marked pallid fascia some distance before the apex, and a very minute pallid pubescence irregularly distributed on the basal part.

Bealey, Helms; a single example.

#### STENELLIPSIS.

*Stenellipsis cuneata*, n. sp.—*Minus elongata*, elytris ad apicem attenuatis; nigricans, supra fusco-rufa, tenuiter griseo-vestita, elytris ad latera ante medium vage ochraceo-plagiatis, ultra medium vage angulariter griseo-fasciatis. Long. 7 m.m. (Plate XIII., fig. 21.)

Antennæ reaching to the extremity of the body, the joints a little infusate towards their apices, from the base to the sixth joint feebly ciliate beneath. Thorax with the sides rounded, feebly constricted in front and behind, densely and finely punctate, obscure reddish in colour, evenly covered with fine griseous pubescence. Elytra only a little broader than the thorax, but with prominent shoulders, similar in colour to the thorax, but unevenly pubescent, there being a nearly denuded

space in front of the middle, so as to cause an angular faint fascia, limited in front at the sides by pubescence of a more ochraceous colour, the posterior angular fascia still more faint; there is a sutural stria not reaching the front, and numerous coarse punctures on the basal portion. Femora much inflated.

This species, on account of its shorter legs and antennæ and acuminate elytra, approaches rather closely to *Xylotoles*; but the sculpture and facies are more those of the genus in which I place it.

Picton, Helms; a small series of examples.

#### PÆCILIPPE, Bates.

This genus has not yet been distinguished in a very satisfactory manner from *Hybolasius*, but I find a character which appears sufficient to warrant its retention, viz. that the scape of the antennæ is cicatrized in front towards the apex by numerous scars. This character exists also in *Hybolasius simplex*, though not in so marked a degree, and it will be necessary, therefore, to treat that species as belonging to *Pœcilippe*. The two following new species also are quite similar to *Hybolasius*, except in the above character.

*Pœcilippe medialis*, n. sp.—Nigro-fusca, antennis tibiisque testaceo-variegatis; pubescens, elytris ante medium fascia lata ad latera antrorsum curvata albida, post hæc fascia nigro-fusca, apice minus argute pallido; prothorace ad latera minus acute tuberculato, elytris ad basin tuberculis sat elevatis haud cristatis. Long.  $5\frac{1}{2}$ –8 m.m.

Scape of antennæ dark, the following joints testaceous at base, fuscous at extremity. Thorax strongly transverse, furnished at each side with an angular prominence, and on the middle with two transverse elevations; it is sparingly covered with griseous pubescence, which is more concentrated at each side behind the lateral tubercle. Elytra broad, not narrowed till near the extremity, near the suture at the base, with two broad, not tufted, elevations, and behind each a little obliquely depressed, clothed with whitish pubescence, which forms a broad band just about the middle, and is sharply limited behind by black, in front quite vaguely limited; behind the broad dark fascia the pubescence is again more pallid, though more scanty. Tibiæ black at the apex; pallid above this.

This species is excessively similar to *Hybolasius pedator*, but the central pallid fascia is more distinct and curvate in the opposite direction.

Picton, Helms; a small series exhibiting little variation except in size.

*Pœcilippe femoralis*, n. sp.—Nigricans, griseo-vestita, subvariegata, pedibus plus minusve rufo-variegatis femoribus semper superne rufis, antennis pedibusque longius albido-setosellis, illis ex parte majore testaceis. Long.  $5\frac{1}{2}$ –7 m.m.

Thorax rather elongate, with moderate lateral prominence, and two slight elevations in front of the middle, the pubescence more concentrated at the side behind the lateral tubercle. Elytra depressed, narrowed behind, the centro-basal tubercles moderately conspicuous, but not tufted, the surface behind them a little obliquely depressed, and also near the suture behind the middle longitudinally a little depressed; they are more or less obscurely rufescent, exhibit a punctuation like the species of *Hybolasius*, and are clothed with griseous pubescence in a somewhat spotty or irregular manner.

Although very similar to *P. medialis*, this is readily distinguished by the longer thorax, and the absence of a definite medial fascia on the wing-cases.

Picton, Helms; a series of twelve examples, unfortunately much abraded, varying a good deal in size and in the colour of the derma, which is sometimes more rufescent than black.

#### TETROREA.

*Tetrorea longipennis*, n. sp.—*Angustula*, nigra, supra olivaceo-nigra, elytris pube pallida ornatis, pedibus antennisque rufescentibus, griseo-vestitis, fusco-maculatis; thorace ad latera obtuse tuberculato, disco fortiter punctato, obsolete bi-tuberculato. Long. 10 m.m. (Plate XIII., fig. 22.)

I have seen only a single example of this insect; though similar to *T. sellata* it is much smaller, and is readily distinguished by the large extent of the pale patch of the wing-cases; this extends backwards beyond the middle, becoming attenuate behind, and then expanding again, and ceasing a little before the apex. The thorax has but little pubescence, and is armed at the side with only a short obtuse angular prominence, and there are numerous coarse, deep punctures on the middle, and two slight prominences. The elytra have a very obscure elevation of the surface on each side near the base; they possess numerous deep punctures on the basal portion; these extend backwards along the sides nearly to the extremity; behind the termination of the pale portion there is a minute elevation, covered with dense black velvety pile; the posterior part of the pale colour is defined in front by a minute line of black pile, and there is an obscure obtuse elevation behind the middle, near the suture. The slender basal portion of the femur, unlike the other parts, is not maculate.

Greymouth. Helms, No. 196.

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#### Fam. CHRYSOMELIDÆ.

##### EUCOLASPIS (nov. gen. Eumolpinorum).

Coxæ omnes parum distantes; corpus absque pubescentia; coxæ anteriores ad marginem anteriorem prosterni sitæ.

The form is rather short, convex. The head is deflexed, the eyes moderately convex. The pronotum is margined at the base, sides, and front, but has no denticles or sinuation on the lateral margin. The front coxæ are situated as near as possible to the front margin of the prosternum, which is not at all deflexed; they are moderately separated, the prosternum arched upwards behind them. The middle coxæ also are moderately separated; the metasternum is short: the hind coxæ are not more widely separated than the others. The femora are rather slender, unarmed; the tibiæ are simple, straight externally, not mucronate at the apex; the third joint of the tarsus is bilobed, but it is short, and fitted rather closely to the preceding joint; the claws are appendiculate.

The genus is established for the insects placed by White and Broun in *Colaspis*; but, according to the classification of Chapuis, they must not only be removed from *Colaspis*, but also from the group *Colaspites*, and their position would appear to be in the group *Iphimaites*. *Peniticus* is clearly an allied form, and as a genus is distinguished by the short convex form, the greater separation of the coxæ, the excessively short metasternum, and the position of the front coxæ, which is not quite so close to the front margin.

#### ATRICHATUS (nov. gen. Eumolpinorum).

Corpus oblongum absque pubescentia; prothoracis anguli posteriores liberi; coxæ posteriores magis quam anteriores et intermediae distantes.

This is another form closely allied to *Eucolaspis*, but appearing to me entitled to generic distinction. The anterior and middle coxæ are but little more separated than they are in *Eucolaspis*, but the posterior are more widely distant. Although very different in form to *Peniticus*, *Atrichatus* is as near to it as to *Eucolaspis*, but the front coxæ are not so widely separated, and the metasternum is not so extremely abbreviated. *Atrichatus* has the antennæ very widely separated, and the tibiæ broader at the extremity, and excavate externally; the front coxæ are very near the margin of the prosternum, though not so excessively close as they are in *Eucolaspis*. The claws are appendiculate.

The insect which I take for the type of this genus was found at Christchurch by Wakefield. I do not describe it, as I think it may probably be the *Colaspis ochraceus* of Broun, but figure it. (Plate XIII., fig. 24.)

#### PILACOLASPIS (nov. gen. Eumolpinorum).

Corpus oblongum, subtiliter pubescens; coxæ anteriores et intermediae satis, posteriores magis, distantes, anteriores bene pone prosterni marginem anteriorem sitæ.

This is allied to *Eucolaspis*, but presents too many points of distinction to be treated as a mere extension thereof. The hind coxæ considerably more widely



separated, and the position of the front coxæ, added to the pubescent surface, being the most important points of distinction. The other characters are apparently similar to those of *Eucolaspis*, except that I cannot detect any lobes or appendage on the claws: it is just possible, however, that I may be in error on this point, as the only example I have seen is in bad condition, and much mutilated.

*Pilacolaspis wakefieldi*, n. sp.—Sordide testaceus, supra ænescens, tenuiter albido-pubescent, crebre punctatus, antennis pedibusque elongatis, crassiusculis. Long. 5 m.m.

Antennæ elongate; second joint subglobose; third elongate, a little shorter than the fourth; tenth twice as long as broad (terminal joint mutilated); the colour is uniform dusky yellow. Head rather closely punctate, with a fovea on the middle. Thorax strongly transverse, with the sides rounded, and more narrowed behind than in front; a little sinuate at the posterior angles, which are by this made rectangular; the surface is uniformly densely and moderately coarsely punctured. Elytra with diffuse moderately coarse punctuation, not so dense as that of the thorax and more effaced on the apical portion. Undersurface yellow, sparsely pubescent. Legs stout, yellow.

Christchurch, C. M. Wakefield, Esq.

#### CACCOMOLPUS (nov. gen. Chrysomelinorum).

Antennæ graciles, apicem versus paulo latiores. Palpi maxillares articulo ultimo apice truncato. Coxæ omnes distantes. Tibiæ extus ultra medium latiores basi et apice tenuioribus.

This genus is closely allied to *Aphilon*, but it is comparatively of ordinary facies, resembling in form and appearance the hemispherical *Phytophaga*, such as *Phædon* and *Apteropeda*. It differs from *Aphilon* by the almost filiform antennæ, and truncate apex of maxillary palpi, by the less widely distant front coxæ, and the fact that all the coxæ are larger and less globose.

The position of these two genera should be in the Chapuis group *Chrysomélites*, where they will be exceptional on account of the bilobed tarsi. One Eastern genus—*Agasta*—is already known to possess this peculiarity, but the New Zealand genera do not appear to be in the least allied to it.

*Caccomolpus globosus*, n. sp.—Rotundatus, convexus, æneo-niger, nitidus, antennis, pedibus, abdomine, capite subtus sternique lateribus flavis; elytris seriatim punctatis, interstitiis parce punctatis. Long. 3 m.m. (Plate XIII., fig. 23).

Antennæ elongate; third joint longer than second; tenth much longer than broad; terminal joint still more elongate. Head very sparingly punctate; the clypeus more closely. Thorax about three times as broad as long; sparingly punctate. Scutellum moderately large and elongate, impunctate. Elytra each with nine series of punctures, the external indistinct, and all becoming quite obsolete behind; between the suture and the first stria there are three or four punctures interpolated near the base; legs pale yellow, coxæ brownish; middle of the body beneath æneous. The male has the basal joint of all the tarsi much larger than it is in the female.

Greymouth, Helms.

*Cacemolpus plagiatus*, n. sp.—Rotundato-ovalis, convexus, nitidus, testaceus, clytris basin versus plaga magna transversa nigro-fusca, obsolete seriatim punctatis. Long. 4 m.m.

Antennæ pale yellow, elongate, slender; third joint a good deal longer than second. Head impunctate, bi-impressed between the eyes. Thorax with numerous rather large punctures irregularly distributed. Elytra near the base with a very large patch of dark colour extending nearly but not quite to the side margin; near the outside this patch is prolonged in front so as to touch the base, and behind it is also longer externally than it is at the suture, being externally about half the length of the elytra; the scanty serial punctuation is very much effaced; the legs are rather long; the external sinuosity of the tibiæ very pronounced: on the under-surface the middle of the breast is dark, the rest pale.

Greymouth, Helms: I am indebted to Herr Reitter, of Vienna, for the only example I have seen of this distinct species.

#### TRACHYTETRA (nov. gen. Halticinorum).

Acetabulæ anteriores apertæ; pronotum absque sulca transversa; tibiæ posteriores apice breviter calcarato; metasternum brevissimum.

Antennæ moderately long and stout, 11-jointed; anterior coxæ only slightly separated; mesosternum not in the least impressed; metasternum so short that the hind coxæ are only slightly separated from the middle; hind coxæ moderately separated; femora strongly dilated; hind tibia slender, armed at the apex with a short mucro directed outwards; tarsi rather short, their basal joint one-third of the length of the tibia; claw joint small; claws minute: the other tibiæ without mucro; epipleura rather narrow, completely disappearing some distance before the extremity.

The type of this genus is a remarkable little Halticid with very coarse punctuation, and the shoulders of the elytra very rounded; it was found at Auckland by Lawson, and is, I believe, the

*Phyllotreta rugulosa*, Broun. The genus may be placed near *Phyllotreta*, from which it is distinguished by the very abbreviate metasternum.

PLEURALTICA (nov. gen Halticinarum).

Acetabulæ anteriores apertæ; pronotum absque sulca transversa; tibiæ posteriores ecalcaratæ; metasternum sat elongatum.

This genus I propose for the reception of *Phyllotreta cyaneum*, Broun. It is not much allied to *Phyllotreta*, nor apparently to any known form. It has very long antennæ, 11-jointed, with elongate basal joint; the front coxæ are moderately separated, and the mesosternum is very slightly impressed in the middle for the reception of the prosternal process; the metasternum is of normal length, and the hind coxæ rather widely separated; the hind femora are moderately broad, rather flat; the tibiæ are not grooved at the extremity, but their superior external aspect is flat, and polished nearly up to the knee, and its outer edge is finely and densely minutely ciliate near the extremity; the epipleuræ are broad, and do not disappear till near the extremity. The female has a raised plica on the elytra extending backwards from the shoulder; and in the male the epipleuræ are broader and more deeply sulcate. (Plate XIII., fig. 25.)

LUPERUS, Auct.

Broun, in his "Manual of New Zealand Coleoptera," has described, p. 631, as a new genus, under the name of *Adoxia*, some insects which he says differ from *Luperus* in the form of the head and structure of the palpi and antennæ. *Luperus* is a cosmopolitan genus already recorded from Polynesia and New Caledonia; and after a prolonged comparison of the New Zealand species at my disposition, I have quite failed to find any character to distinguish them generically from those of other countries. One species indeed I can separate only by slight specific characters from a Brazilian species of the genus.

*Luperus nigricornis*, n. sp.—Niger, vertice fusco, thorace testaceo, elytris albido-testaceis, dense punctatis, sutura margineque externo omnium angustissime nigris. Long.  $4\frac{1}{2}$ –5 m.m.

Antennæ black, basal joint but little swollen, third joint longer than second, fourth much longer than third; each of the joints towards the extremity three or four times longer than broad. Head black in front, the vertex brown. Thorax yellow, nearly twice as broad as long, much narrower than the elytra; its sides nearly straight, simply margined, without denticle at anterior angle; the surface appears smooth, but is really rather closely punctate, though the punctuation is quite obsolete. Scutellum black. Elytra very pallid, but with the suture as well as the outer margin just visibly marked with black; they are finely but extremely

densely punctate, almost rugulose, the apex broadly rounded. The legs and undersurface are black; the hind body sometimes fuscous towards extremity.

Greymouth, Helms, No. 51. One of the sexes appears to be rather larger, with the antennæ slightly more elongate.

*Luperus ænescens*, n. sp.—Elongatus, depressus, æneus, antennis pedibusque fusco-testaceis; prothorace fere impunctato, elytris crebre minus subtiliter punctatis. Long. 4 m.m.

Antennæ very slender, elongate, joints 4-11 sub-equal to one another, the former slightly the longer; basal joints not much swollen. Thorax twice as broad as it is long, only very indistinctly and sparingly punctate, the punctuation a little more distinct on the basal portion, the sides slightly narrowed behind, the front angle a little thickened and prominent. Elytra parallel, closely and not finely punctured, with a slight depression at the base within the shoulder; the apices broadly rounded; the long narrow pygidium projects horizontally beyond the elytra, and is impunctate. Legs infusate yellow, the base of the femora clear yellow. This is excessively similar to the numerous European species of the *L. rufipes* group, but has a much more elongate basal joint to the antennæ.

Bealey, Helms.

*Luperus puncticollis*, n. sp.—Minus gracilis, nigricans, supra cum antennis pedibusque testaceis; prothorace elytrisque fortiter punctatis. Long.  $4\frac{1}{2}$  m.m.

Antennæ rather short and stout, sordid yellow. Thorax transverse, the sides rounded, the anterior angles not prominent, the base oblique on either side near the very obtuse posterior angles, the surface shining, coarsely and moderately closely punctate. Elytra coarsely and closely punctate; apices rounded, leaving extremity of body exposed. Legs yellow; hind tibiæ not curvate.

This is very different from the other species.

Otira, Wakefield.

## NOTES ADDED DURING PRESS.

Since this Paper was submitted to the Society I have received from Mr. Helms a small consignment of Coleoptera from Greymouth, containing some interesting species, and giving rise to the following descriptions and most of the remarks:—

*Cicindela helmsi* (*ante*, p. 358).—Both sexes of this species have now been received; and although the examples are in bad preservation, they are sufficient to confirm the species as a very distinct one; the surface of the wing-cases is much marked by large but extremely obsolete pits; the pallid lateral margin has some brown specks in its apical portion; the female is rather larger and broader than the male, and has, at the extremity of the suture, a deep, remarkably definite, narrow, common excision. The interruption near the base of the pallid lateral margin is constant.

Genus *Ctenognathus* (*ante*, p. 363).—Since this was written I have examined some of the very numerous Central American species of Colpodes recently described by Bates in *Biologia Centrali-Americana*, vol. i., pt. 1, and I find that some of them are, so far as the thoracic setæ are concerned, *Ctenognathi*: the genus, therefore, is not peculiar to New Zealand.

*Pterostichus rugifrons*, n. sp.—*Elongatus*, *subparallelus*, *nitidus*, *niger* *antennis* *palpis* *pedibusque* *piceis*; *capite* *thoraceque* *transversim* *rugosis*; *elytris* *foveolato-striatis*. Long. 18 m.m.

This species belongs to the group 4A, as defined by me on p. 365 *ante*, and is allied to *P. myrmidon*, but has the sculpture much more remarkably developed, suggesting at first that the insect is a *Mecodema* rather than a *Pterostichus*. *Holcaspis cribrale*, Broun (*sic*) is, I expect, nearer to the species I am considering, but the description indicates that it must possess a still more remarkable sculpture. In *P. rugifrons* the thorax is almost longer than broad, but little curved at the sides, and slightly broader at the base than it is at the very depressed obscure front angles; the surface is traversed by numerous distinct, but not deep, transverse rugae; the hind angles are decidedly obtuse, owing rather to the curvation of the base than to the rather small obliquity of the lateral margin. The sculpture of the elytra consists of striæ interrupted in some places, and in others augmented by oblong depressions, which are more conspicuous and punctiform on the lateral regions than on the sutural.

*Soronia oculata*, Reitter (Fam. Nitidulidæ).—This species has been received by me, for the first time, from Mr. Helms (as No. 418). It is exceedingly similar to *S. grisea*, so much so, that unless the two are actually placed side by side they might well be considered as one species. It is certainly a very remarkable fact

that one of our commonest European insects should be so very similar in appearance to a New Zealand species, and this is still more the case, as the superficial resemblances are accompanied, I find, by some structural dissimilarities, so that I doubt whether the two will ultimately remain in one genus. The sexual characters are very different, the front and middle tibiæ in the male of *S. oculata* being simple, and the hind tibia excised at the base internally. The New Zealand species, too, is remarkable on account of the very wide separation of the hind legs, the wide abdominal process between them being only very obtusely angulate in the middle. In the New Zealand insect the antennal grooves are much less convergent behind, and the epipleuræ entirely disappear at the sutural tip of the wing-cases.

*Picrotus* (*ante*, p. 394).—This insect has been recently examined by some skilful entomologists, who concluded they could only find four joints to the tarsi. I may therefore state that the description given by me of the trophi and feet of *P. thoracicus* was made from a dissection mounted in Canada balsam, and is undoubtedly correct, as a fresh examination of the preparation, so far as regards the feet, has been made by myself and the Rev. H. S. Gorham.

The following interesting weevil of the group *Eugnomides* has been received with some other insects during the printing of this memoir:—

*Ancistropterus helmsi*, n. sp.—Major, fusco-piceus, elytris æneo-rufis, tibiis rufis; oculis parum prominulis; elytris humeris extus vix prolongatis, dorso obtuse binodosis, nodulis penicillatis. Long. rostr. incl. 8 m.m.

Antennæ blackish, terminal joint of club rather longer than the two preceding joints together. Rostrum stout, closely punctulate; eyes not convex, though, as the head is abruptly narrowed in front of them, their anterior aspect is convex. Thorax truncate-conical, coarsely punctate, indistinctly transversely plicate. Elytra elongate, much narrowed behind, shoulders forming an obtuse angle: viewed laterally it is seen that the surface rises much from the scutellum backwards, and at the summit, much behind the middle, is crowned with two obtuse elevations, having much longitudinal extension, and being surrounded by a longitudinally long tuft of hairs; the regular series of punctures are rather fine.

This more resembles *A. browni* than it does any other species, but is very distinct therefrom by the less convex eyes. This character renders the generic position somewhat doubtful, suggesting that the insect would be as naturally placed in *Scolopterus*. Moreover, the two examples received have the pygidium and propygidium exposed, but this may be the result of the decayed state in which I received them. It is not advisable to add to the New Zealand genera of this group a new one until a thorough revision be made of them. This is much needed.

Greymouth, Helms; two examples, No. 436.

EXPLANATION OF PLATE XII.

## PLATE XII.

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| Fig. 1. <i>Mecodema ducale.</i>                      | Fig. 14. <i>Coprostygnus sculptipennis.</i> |
| „ 2. „ <i>rugiceps.</i>                              | „ 15. <i>Omalium sagoloide.</i>             |
| „ 3. <i>Diglymma ovipenne.</i>                       | „ 16. <i>Catopsolius lævicollis.</i>        |
| „ 4. <i>Metaglymma sulcatum.</i>                     | „ 17. <i>Heterargus rudis.</i>              |
| „ 5. <i>Anchomenus pictonensis.</i>                  | „ 18. <i>Ulonotus dissimilis.</i>           |
| „ 6. <i>Pterostichus (Trichosternus) compressus.</i> | „ 19. <i>Enarsus eucullatus.</i>            |
| „ 7. „ <i>(Zeopœcilus) calcaratus.</i>               | „ 20. <i>Bitoma sellata.</i>                |
| „ 8. „ <i>myrmidon.</i>                              | „ 21. <i>Pycnomerus longulus.</i>           |
| „ 9. <i>Picrotus thoracicus.</i>                     | „ 22. „ <i>sulcatissimus.</i>               |
| „ 10. <i>Sympiestus syntheticus.</i>                 | „ 23. <i>Brontopriscus sinuatus.</i>        |
| „ 11. <i>Zolus helmsi.</i>                           | „ 24. <i>Cathartocryptus obscurus.</i>      |
| „ 12. <i>Quedius insolitus.</i>                      | „ 25. <i>Saphophagus minutus.</i>           |
| „ 13. <i>Cafioquedus gularis.</i>                    |   |





EXPLANATION OF PLATE XIII.

## PLATE XIII.

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|---|---|
| Fig. 1. <i>Triphyllus zealandicus.</i>                    | Fig. 14. <i>Cuneopterus conicus.</i>                  |
| .. 2. <i>Corymbites irregularis.</i>                      | .. 15. <i>Dermotrichus mundulus.</i>                  |
| .. 3. <i>Protelater elongatus</i> var. d.                 | .. 16. <i>Crisius obesulus.</i>                       |
| .. 4. <i>Perplectus obscurus.</i>                         | .. 17. <i>Pentarthrum constrictum.</i>                |
| .. 5. <i>Periatrum helmsi.</i>                            | .. 18. <i>Anthribus tuberosus.</i>                    |
| .. 6. <i>Cerodolus chrysomeloides.</i>                    | .. 19. <i>Proscoporphinus albifrons.</i>              |
| .. 7. <i>Malacodrya pictipes.</i>                         | .. 20. <i>Ophryops dispar</i> ♀.                      |
| .. 8. <i>Nonnotus griseolus.</i>                          | .. 21. <i>Stenellipsis cuneata.</i>                   |
| .. 9. <i>Protophormus gracilis.</i>                       | .. 22. <i>Tetrorea longipennis.</i>                   |
| .. 10. <i>Aporolobus (Trachyphlæus) irritus</i> , Pascoe. | .. 23. <i>Caccamolpus globosus.</i>                   |
| .. 11. <i>Brachyolus huttoni.</i>                         | .. 24. <i>Atrichatus (Colaspis) ochraceus</i> Broun.  |
| .. 12. <i>Platyomida coronata.</i>                        | .. 25. <i>Pleuraltica (Phyllotreta) cyanea</i> Broun. |
| .. 13. <i>Heterodiscus insolitus.</i>                     |   |

